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The Journal
OF THE
Michigan State Medical Society

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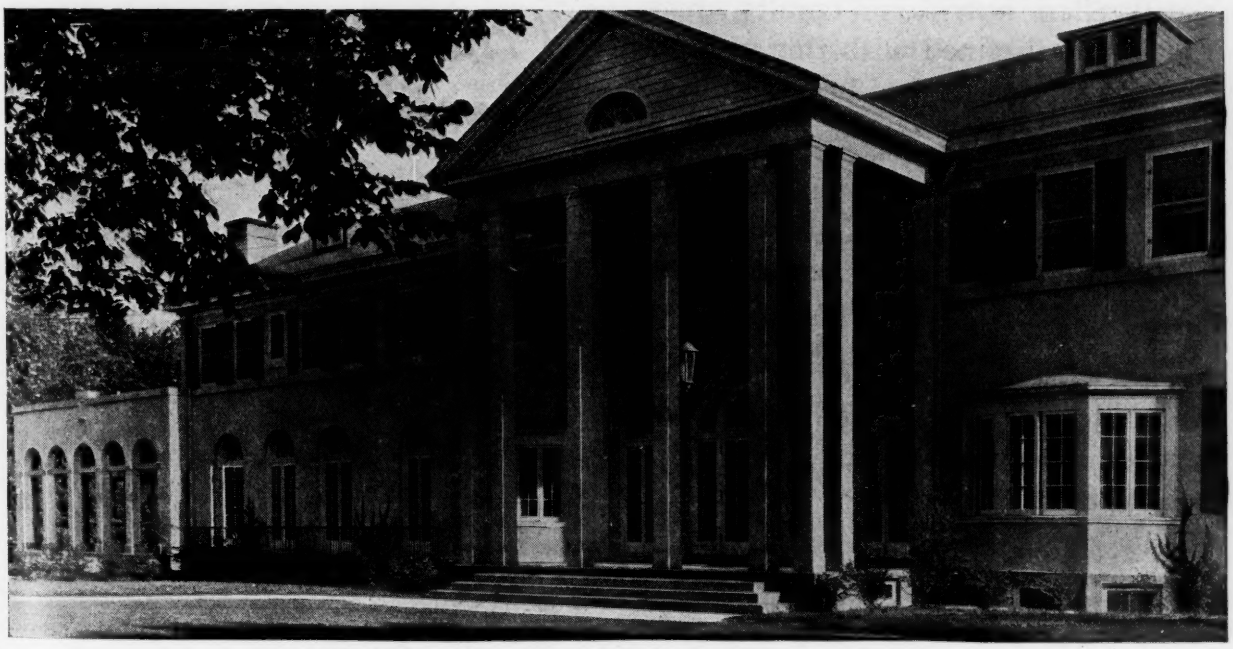

COLONIAL HALL—One of Eight Units in "cottage plan"

Maintaining the highest standards over a period of forty years, the Milwaukee Sanitarium stands for all that is best in the care and treatment of nervous disorders. Photographs and particulars sent on request.

Resident Staff—ROCK SLEYSTER, M. D., Medical Director; WILLIAM T. KRADWELL, M. D.; MERLE Q. HOWARD, M. D. Attending—H. DOUGLAS SINGER, M. D.; ARTHUR J. PATEK, M. D. Consulting—WILLIAM F. LORENZ, M. D.; RICHARD DEWEY, M. D. (Emeritus).

MILWAUKEE SANITARIUM, Wauwatosa, Wis.

FOR NERVOUS DISORDERS

(Chicago office—1823 Marshall Field Annex—Wednesdays 1-3 P. M.)

dress be spread at length upon the minutes and the recommendations concurred in. Carried. The applications of three new members was then read. Moved by Dr. McDaniels, supported by Dr. Jackson that the rules be suspended and these three admitted to membership. Carried, unanimously.

The preliminary arrangements of the program committee for a post graduate medical conference to be held in Alpena on March 19th were approved.

C. M. Williams, Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The January meeting of the Gratiot-Isabella-Clare County Medical Society was held with the 9th District Dental Society in the Park House in St. Louis, Thursday, January 22, 1925. Doctors Lyons and Richert of the University Dental School pere present.

Dr. Lyons gave a very interesting talk with lantern pictures on Cleft palate. After this we all repaired to the dining room, where many good resolutions were broken. When it comes to working in the dining room I think the Dents can beat the Doctors a mile.

After this, those who were able to get away from the table, (some of the dents had to be lifted) returned to the hall and listened to Dr. Richert talk on "Fecal Infections." Some may think they know all about Fecal infections; after hearing Dr. Richert they will think there is still something to learn. All together, we had a real profitable meeting; good fellowship, good eats and good talks.

E. M. Highfield, Secretary.

TRI-COUNTY

At the last meeting of the Tri-County Medical Society, the following officers were elected:

President, Dr. John F. Gruber; 1st Vice President, Dr. S. C. Moore; 2nd Vice President, Dr. J. Doudna; Secretary-Treasurer, Dr. W. Joe Smith; State Delegate, Dr. W. Joe Smith; Alternate, Dr. P. W. Bloxom; Program Committee, Dr. W. Joe Smith, Dr. G. D. Miller, Dr. P. W. Bloxom; Finance Committee, Dr. J. M. Wardell, Dr. O. L. Ricker, Dr. W. Joe Smith; Medical Legal Committee, Dr. G. D. Miller, Dr. J. M. Wardell; Contract Committee, Dr. O. L. Ricker, Dr. S. C. Moore.

As our check for County work is not paid until about the 10th of April, our dues will be late reaching you. Enclosed find check for $10 for 1925 dues for Dr. Schuyler Bush, of Cadillac.

W. Joe Smith, M. D., Secretary.

ST. CLAIR COUNTY

At the recent annual meeting of the St. Clair County Medical Society, the following officers were elected for the year 1925:

President, Dr. T. H. Cooper; Vice President, Dr. George Waters; Secretary-Treasurer, Dr. Howard O. Brush. Dr. T. H. Heavenrich was appointed as delegate to the next State Convention and Dr. A. L. Calley as alternate.

On Wednesday evening, January 21, the St. Clair County Medical Society tendered a banquet to three of their eldest practicing physicians, namely, Dr. G. S. Ney, Dr. C. B. Stockwell, and Dr. Geo. Smith. The meeting was very well attended, about forty members being present.

Howard O. Brush, Secretary.

HILLSDALE COUNTY

The Annual Meeting of the Hillsdale County Medical Society was held at Hillsdale on Tuesday, January 20, at 8 p. m., the Vice President, Dr. Bechtol, in the chair. After the reading of the minutes, Dr. W. H. Sawyer gave a most thoughtful and impressive address on "The Responsibility of the Medical Profession." The speaker called attention to the dwindling ranks of the Profession and the reluctance of young men to undertake the arduous and expensive task of acquiring a medical education, and especially to their refusal to settle for practice in small towns or even small cities. He pointed out the great need of devising some means by which the mass of people in such localities could be furnished their adequate medical service without degrading the profession, or pauperizing the people. Dr. Sawyer also spoke of the increase in cults and fads, charged the belief of the public in them largely to the reticence of the profession and its neglect to bring the truth of all matters medical to them. He made an earnest plea for the physicians of the country and state to give these important questions earnest and constructive thought, to the end that they may be answered in the best manner.

Discussion was opened by Dr. Greene, followed by general discussion in which Dr. Sawyer's address was warmly approved, all feeling that the address proved, if proof were needed, that we have no need to go outside of our own membership for valuable and interesting addresses and papers.

The Society then elected its officers for the year, resulting as follows: President, Dr. J. H. Johnson; Vice President, Dr. H. C. Miller; Secretary-Treasurer, Dr. D. W. Fenton; Dr. T. H. E. Bell was elected delegate to the State Medical Society, with Dr. Fenton as alternate.

Dr. Green, Councilor for this district, spoke of the District Conference to be held February 19, at Jackson, and urged all members who can, to be present.

The circular letter to the profession from the Gorgas Memorial Institute, was read by the Secretary and after discussion, it was moved, supported and carried that the subject be laid on the table until the next regular meeting.

It was then moved, supported and carried that the Secretary be instructed to invite the physicians of Branch County to join us at our next regular meeting in April. After the approval of a bill from the secretary for incidental expenses, the society adjourned.

D. W. Fenton, Secretary.

OAKLAND COUNTY

I wish to report our meeting held February 5th, at the Chinese Tea Garden, Pontiac. Twenty members attended. We were addressed by Dr. Cecil Striker, Department of Internal Medicine, University Hospital. His subject was, "Tolerance Developed by Diabetics," which we enjoyed.

The Library Committee reported and requested that $50 be given for Medical Journal, etc., which was done. Dr. R. Y. Ferguson was appointed to act as historian for the Society to collaborate with the Library Committee.

A letter was read from Dr. Burr, of Flint, Michigan, in favor of the establishment of capital punishment for criminals. The Oakland County Society passed a resolution endorsing the letter.

We expect to have our next meeting February 27th.

Leon F. Cobb, Secretary.

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GOGEBIC COUNTY

The following is the report of the regular February meeting of the Gogebic County Medical Society:

The regular monthly meeting of the Gogebic County Medical Society was held at Grand View Hospital, Ironwood, Friday evening, February 13th. Nine members were present. Dr. Draper read a paper on "Breath Sounds," which was discussed by various members.

M. J. Lieberthal,
Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

AN AFRICAN HOLIDAY. Richard L. Suton, M. D. Price $2.25. C. V. Mosby Company, St. Louis, Mo.

Many books on Africa have been written, but few authors have presented the subject in so graphic and concise a manner as Dr. Sutton. A writer of wide experience and a scientist of international reputation, he has grasped the salient points and emphasized the important features in a way that is bound to appeal to every educated reader.

From the foreword to the final chapter, the story is absorbingly interesting, and, withal, so simply and admirably set down, that children as well as adults will enjoy its every detail.

OPERATIVE SURGERY: J. Shelton Horslley, M. D. Second edition; 666 illustrations. C. V. Mosby Company, St. Louis, Mo. Price $12.50.

This is a splendid text on operative surgery that emphasizes constructive, conserving technic with every attention to physiological end results. It is clear in diction, sound in principle and void of non-essentials. Important procedures are well illustrated. It is a welcome text to our surgical literature and one that merits every confidence.

INFECTION, IMMUNITY AND INFLAMMATION. F. B. Gurd, McGill University. C. V. Mosby Company, St. Louis, Mo. Price $5.00.

A study of the phenomena of hypersensitiveness and tolerance and their relationship to the clinical study, prophylaxis and treatment of disease.

THE DIAGNOSIS OF CHILDREN'S DISEASES. Prof Dr. Freer, Zurich, translated by C. A. Scherever, M. D. J B. Lippincott Company.

The first English edition of the third English edition of the original text. It is entirely confined to diagnosis.

A TEXT-BOOK OF PHYSIOLOGY FOR MEDICAL STUDENTS AND PHYSICIANS. William H. Howell, Ph. D., M. D., Professor of Physiology in the School of Hygiene and Public Health, Johns Hopkins University, Baltimore. Ninth Edition, thoroughly revised. Octavo of 1069 pages, 308 illustrations. Cloth, $6.50. W. B. Saunders Company, Philadelphia and London.

A revised ninth edition that is wholly abreast of progress made and void of the obsolete. Practical, lucid and simple. A text that many, if not all, physicians should secure to refresh and renew their views on normal physiology. Principles have changed, new light is evidenced since your college days.

THE CRIPPLED HAND AND ARM.Carl Beck, M. D. 302 illustrations. J. B. Lippincott Company.

This is a monograph on the various types of deformities of the hand and arm as a result of abnormal development, injuries and disease. It sets forth methods of corrective treatment of infections. Sound, practical and a safe guide for general practitioners.

FRACTURES AND DISLOCATIONS. P. D. Wilson, M. D., Howard Medical School and W. A. Cochraul, University of Edinburgh. 978 illustrations. J. B. Lippincott Company.

A splendid text on fractures and dislocations based upon the experiences of the fracture service of the Massachusetts General Hospital. It thus becomes a valued guide and imparts numerous methods and procedures that tend toward securing ideal results in fractures. A text that should be in the hands of every surgeon and every doctor who attends patients presenting fractures or dislocations.

DIPHTHERIA MORTALITY IN THE LARGE CITIES OF THE UNITED STATES

With the aim of bringing the diphtheria situation in American cities to general attention and in the hope that methods found available for reducing diphtheria in one locality may be made familiar and be utilized in others, The Journal has undertaken an annual general survey of diphtheria mortality in American cities of more than 100,000 inhabitants, similar to the typhoid surveys published for several years past. The sixty-eight cities included in the survey are those having a population of more than 100,000 at the time of the U. S. Census of 1920 (fourteenth census). The diphtheria death rates have been calculated on the basis of the population estimates of the U. S. Bureau of the Census, where these are available. The cities in the New England states have, for the most part, rather high diphtheria rates, the highest rate in any American city being registered in a city in this group (Fall River). Hartford is the only one of the eleven New England cities to show a continuous decline in diphtheria for each quinquennium since 1890, although Cambridge and Bridgeport have records substantially as good. Two cities (Fall River and New Bedford) have higher diphtheria death rates for the four years, 1920-1923 than for the preceding quinquennium. The cities of the Middle Atlantic states have also for the most part relatively high diphtheria rates, seven of the fifteen cities having average rates of 20.0 or over for the four years 1920-1923, and only one (Trenton) an average rate below 10.0. New York City makes a remarkable showing in this group, maintaining a continuous decline throughout the thirty-year period, the percentage decline in the last four years being especially notable. Jersey City and Newark also show a steady diminution in each quinquennium for this period. Philadelphia, in which diphtheria seems to have been surprisingly high in the last decade of the nineteenth century, has likewise achieved a steady improvement comparable with that of New York. For shorter periods, Scranton, Trenton and Camden have maintained uniform progress in the direction of lower rates. Some cities, however, in this group have not had so satisfactory an experience. Several cities (Rochester, Syracuse, Albany, Buffalo, Paterson, Yonkers and Reading) recorded a higher average diphtheria for the last four years (1920-1923) than they did in the quinquennium 1915-1919, Syracuse and Buffalo especially, apparently, being considerably worse off in the proportion of diphtheria deaths than they were twenty years earlier.

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The cities in the South Atlantic states show at the present time relatively low diphtheria death rates, although in the decade 1890-1899 both Baltimore and Washington were apparently more severely affected than Syracuse and Buffalo. Baltimore is the only city in this group to show uniform progress in the direction of a lower diphtheria rate. The 1920-1923 diphtheria rate in Richmond was considerably higher than for either of the two preceding quinquenniums, and in Atlanta the 1920-1923 rate was the highest for the whole thirty-four year period. Like the Middle Atlantic states, the cities of the East North Central states have relatively high diphtheria rates, although there are some conditions that are difficult to understand, such as the disparity for the last decade between the rates in the two Lake cities of Milwaukee and Detroit. Cincinnati is the only city in this division to show uniform progress from quinquennium to quinquennium. Two Ohio cities (Columbus and Dayton) have had for ten years a consistently low average, but two others (Toledo and Youngstown) had much more diphtheria for 1920-1923 than in the preceding five years. The cities of the East South Central states have had relatively low rates during nearly all the period covered by our figures. Both Louisville and Nashville, however, have apparently experienced a progressive increase in diphtheria deaths since 1910. The cities in the West North Central states have not much to boast of in their diphtheria mortality. Diphtheria in Omaha is apparently about as much of a menace as it was at any time in the last twenty-five years. Since 1905, the diphtheria rate in Minneapolis has averaged less in each quinquennium than the rate in the neighboring city of St. Paul, the divergence in the years 1920-1923 being particularly marked. In St. Louis, diphtheria has apparently remained at about the same level for twenty years, although during this period the rate in Philadelphia has been cut in two and in New York City reduced in still greater proportion. The cities in the West South Central states have relatively low rates, but Dallac and San Antonio have apparently not made much progress in twenty years in reducing their diphtheria mortality. New Orleans, which had a very high rate from 1890 to 1894, has now one of the lowest rates in the country. Fort Worth is apparently the only city in this country with more than 100,000 population to have no record of diphtheria deaths, certainly an oversight in sanitary bookkeeping. The two cities in the Mountain states (Salt Lake City and Denver) show rather astonishing fluctuations in their quinquennial averages, Salt Lake City having a lower average from 1895 to 1899 than any but one of the following five-year periods. Denver had an average diphtheria rate for 1920-1923 that was higher than any of the three preceding averages. The cities on the Pacific Coast also show considerable fluctuations. There was evidently an excessive prevalence of diphtheria in the Pacific states from 1920 to 1923, all seven cities showing higher rates than for the preceding period. In most of the Pacific coast cities, diphtheria seems still an important problem. Seattle, however, has had consistently low rates for fifteen years. In comparing the cities with the highest and lowest diphtheria death rates in 1920-1923, it is evident that in this period the diphtheria mortality was considerably lower in the cities in the southern states. This difference is also evident throughout the period covered by our statistics, and is a reversal of the condition shown in typhoid fever, a disease that affects disproportionately the Southern cities. It is manifest that the Northern cities will have to make relatively greater effort than the Southern cities to overcome the climatic disadvantage from which they suffer in respect to diphtheria. The steadily progressive decline in diphtheria mortality shown by a few Northern cities in the last thirty-four years is all the more noteworthy. The remarkable record made by New York City in combating diphtheria may well serve as an object lesson to the rest of the country. Epoch-making as a discovery of diphtheria antitoxin has been, it would not be legitimate to consider the difference between the 1890-1894 and the 1920-1923 diphtheria mortality as wholly a "saving of life" due to antitoxin treatment. It is impossible, however, to withhold from diphtheria antitoxin credit for the major share in the amazing improvement in diphtheria death rates. The tabulated quinquennial averages bring out clearly, perhaps nearly as well as if the data for individual years were used, the occurrence of more or less localized epidemics of diphtheria. It is plain, for example, that several cities on the Pacific Coast were much more severely stricken by diphtheria in 1920-1923 than in the preceding decade.. Denver was also afflicted to an unusual degree during this period, the diphtheria rates in that city being about six to eight times as high in 1920 (23.2) and (14.8) as in 1915 (3.4) and 1916 (1.7). On the other hand, Springfield, Mass., had a rate of 52.9 in 1917 and 16.9 in 1921, while Chicago, which had a rate of 47.8 in 1917, had only 22.9 in 1919. In a general way, the period 1915-1919 was characterized by relatively increased rates in the New England cities, and the period 1920-1923 by higher rates in the Pacific and Mountain states. In 1915-1919, five of the eleven New England cities had a higher rate than in the preceding quinquennium, but in 1920-1923 all but two showed a decrease, as against 1915-1919; in eight Mountain and Pacific cities, this condition was reversed: only two showed an increase in 1915-1919 over the preceding quinquennium, but seven of the eight showed an increase for 1920-1923 as compared with 1915-1919. While the extreme fluctuations in diphtheria mortality observed prior to 1895 have not occurred in recent years, the existence of more or less pronounced epidemics is still apparent. In the period since 1910, the decline in the diphtheria rate for the registration area of the United States (from 21.4 in 1910 to 17.7 in 1921) has not been nearly so great as the decline in the typhoid rate (from 23.5 in 1910 to 9.0 in 1921). The improvement in the typhoid rate has been brought about chiefly, if not wholly, by methods of preventing infection. For diphtheria we now possess a method of prevention and a means of cure, both of demonstrated effectiveness. A marked reduction in diphtheria mortality in the United States can undoubtedly be achieved in the next ten years by suitably directed organized effort.

PRIMARY CARCINOMA (EPITHELIOMA) OF THE URETER

Albert M. Crane and Homer J. Knickerbocker, Geneva, N. Y. (Journal A. M. A., June 14, 1924), report the twenty-ninth case of this kind. Hematuria was the outstanding symptom. The patient was not in pain except just prior to her entrance to the hospital, at which time there was difficulty in urinating, wtih pain in the bladder. After she passed several clots, the pain as well as the hematuria disappeared. A complete nephrourectomy was done. Examination of the growth in the ureter showed it to be a mucous membrane epithelioma (carcinoma), with no evidence of metastasis in either the kidney or the ureter above it. The patient made an excellent recovery.

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Original Articles

ORGANOTHERAPY IN HYPOPITUITARY DISTURBANCES

ROBERT L. SCHAEFER, M. D.
DETROIT, MICH.

While it is probably true, as Billing stated, that but two hormonic substances have been isolated, namely thyroxin and insulin, it does not necessarily follow that clinical experimentation with other glandular products is illogical or wholly devoid of resuts. It is an established fact that excellent results were obtained with dessicated thyroid and that dessicated thyroid is still being used as a specific substitution even though thyroxin is available. Frequently the work of enthusiasts counterbalanced by skeptic and conservatives leads to further investigation and ultimate results. If one or two discoveries as the above are brought in the near future, due to the recent wave in popularity in endocrinological fields, all hyperenthusiasm will have served its end.

I have been particularly interested the past three years in hyposecretory disfunctions of the pituitary. Before citing specific cases I will outline, briefly, the origin and physiology of this gland. Embryologically it is derived from two entirely dffierent tissues. The anterior lobe arises from the epithelial pouch of Rathke and the posterior portion from the diencephalon. The anterior portion is made up of neurological tissue, the posterior portion and the pars intermedia of chromaffin tissue. It is fairly well established that the anterior lobe regulates the skeletal growth, the function and the development of the gonads and secondary sex characteristics. The posterior lobe assists in regulating carbohydrate metabolism such as glycosuria, hypoglycemia, sugar tolerance and obesity, and in the contractions of unstriped muscles in such organs as the uterus and intestines. It also influences renal secretion, blood pressure and body temperature.

There is at present no satisfactory classification of the various dyscrasias either from a histopathological or symptomatic basis. Cushing, Folta and Englebach each classify them differently and are satisfied in their own minds that further investigation will alter them materally. This is due to the dual character of the gland and its necessary relation with the entire endocrinous system. The symptomatology, especially the chief complaint of a person suffering from hyposecretion, is very variable ranging from menstrual disturbances to epileptiform seizures. The diagnosis or rather grouping under specific endocrine types presents very little difficulty due to the fact that either before or after maturity there has been some hormonic imbalance which is demonstrated in such patent characteristics as height, weight, stature and even temperament. This being the case, we must not allow our eagerness to make diagnoses from an endocrinous viewpoint and cause us to overlook some serious organic or other functional trouble.

In outlining the symptomatology no attempt is made to differentiate the anterior lobe deficiencies from those of the posterior. Some investigators believe that pure anterior or posterior lobe disfunctions do not exist. It is true that most cases overlap. Hyperfunction frequently changes into hypofunction, and hyperfunction of one and hypofunction of another may co-exist. However, the question is to determine from the existing symptomatology as to which gland or portion of gland is altered in function at that time in order to rationally treat the patient and procure results. Some of the most important diagnostic signs are as follows:

1. Family history, demonstrating type signs.
2. Early menstrual disturbance.
   (a) With complete insufficiency of anterior lobe menses may not appear.
   (b) With incomplete insufficiency of anterior lobe cessation of menstruation takes place for months.
3. Anterior lobe.
   (a) Underdevelopment of genitalia and secondary sex characteristics.
4. Skeletal system.
   (a) Stimulating hormones of long and short bones are absent, as a result we have short, stocky individuals.
   (b) The upper measurement from vertex to symphysis is greater than from symphysis to soles of feet.
   (c) Span shorter than height.
   (d) Tendency to small head, though in proportion to rest of body.
   (e) Nose: Small throughout, Grecian type, with perfect nostrils.

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(g) Teeth: Well-developed with perfect occlusion, unless secondary cessation of menses, then a tendency to enlargement of upper incisors.
(h) Hands and feet: Small enpetite type, narrow wrists and short tapering fingers.

5. X-ray: Small, short tapering fingers and short nasal bone.
6. Basal metabolism not constant.
7. Sugar tolerance usually increased.
8. Other symptoms referable to organs and systems.
(a) Recurring and persistent migrains, usually affecting the eyes.
(b) Occasional vomiting related to the menstrual week.
(c) Mentally the pituitary child differs from the hypothyroid, is frequently precarious, ambitious, energetic and sensitive.
(d) Tendency to resist infections.
(e) Obesity: Characteristic distribution of fat pads, such as pelvic girdle and pectoral girdle, mons and mammary padding.

The following cases are chosen because of the diversity of the chief complaint:

Case No. 1. Posterior lobe insufficiency. Preadolescent type.

Miss E. A., April 1923. Age 9 years.

Chief complaint: Obesity. Onset at 6 years. At 7 years there was an evident abnormal obesity. Dietary precautions were of no avail. Weight at time of observation, 119 pounds.

History of development: Normal delivery. Weight at birth, 5 pounds. Dentition, walking and talking at normal period. Play life and associations normal. Tendency to precocity at school.

Family history: Father and mother both fall into pituitary types. Father tends to hyper with suggestive prognathism, large frame and tufting of fingers. Mother hypo with girdle obesity. No other children.

Physical examination: Height, 54 inches. Vertex to symphysis 29 inches. Symphysis to soles 25 inches. Span 53 inches. There is a slight tendency to scleroderma, marked pelvic and pectoral girdle adiposity with hypogastric, mons and mammary padding. External genitalia well-developed, a few pubic and axillary hair present. The normal lines and contour of the body are lost because of marked obesity.

Treatment: She was placed on pituitrin intramuscularly, thyroid and pituitary body by mouth. In September her weight was 88 younds. She then was sent to boarding school and therapy by mouth was continued. The following Christmas her weight was 94 pounds. At the termination of the school year her weight was 100 pounds and she was again placed on treatment. Even with the gain in weight, part of which is normal, the configuration of the body is now normal and as she states she does not look like a "tub" and is not ridiculed by her schoolmates.

Case No. 2. So-called pituitary hibernation or somnolence. Thyro-pituitary insufficiency, bilobar involvement.

Mrs. J. D., age 28 years.

Chief complaint: Somnolence and obesity. Came on three years ago and became progressively worse. Unable to sew, read or entertain because of drowsiness. Coincident with this a marked gain of weight. Weight at marriage ten years ago was 140 pounds. Present weight, 219 pounds. Eight pounds at birth. Talked and walked at 2 years. No juvenile adiposity. Menses at 12 years, regular but scanty. One pregnancy, living child of 6.

Physical examination. Span 64 inches. Height 66 inches. Symphysis to vertex 34 inches. Symphysis to soles 34 inches. Hands not typical, though the palm is relatively broad with long fingers. There is dorsal padding of the fingers and cuffing of wrists and ankles. There is pelvic and pectoral girdle type of obesity. Some chin, supraclavicular and posterior cervical padding.

Treatment: She was placed on therapeutic doses of pituitrin intramuscularly and Thyroid. She was also given pituitary body (whole gland) by mouth. This patient was given as high as 45 minims of pituitrin without any ill effects. At the end of one month patient's weight had dropped to 205 pounds; her somnolence was very much better. She was then placed on a low caloric diet, because she was not satisfied with the above. At the end of February her weight was 185 pounds. She then discontinued all treatment and her weight went back to 205 pounds and with it a return of all symptoms. She is at present under treatment, the past two months, with no dietary restrictions. Weight is now 190 pounds and there is a general improvement of all the other symptoms.

Case No. 3. Pituitary amenorrhea. Thyro-pituitary with bilobar involvement, postadolescent.

Mrs. P., age 26 years. First seen in 1922. At this time her endocrine picture was not appreciated.

Chief complaint: Amenorrhea. Her menses occurred at intervals of three to six months in the past four years. Onset was at 14 years, regular twenty-eight-day type, duration 3 to 4 days. Coincident with amenorrhea patient began to grow fat, weight at 18 years 115 pounds, between 20 and 21 years she gained 50 pounds. She was placed on Thyroid by mouth and ovarian extract intramuscularly. There was no change in the menses although she lost about ten pounds. She was dissatisfied and I did not see her for some time, when she came in asking for a letter which would admit her to the University Hospital. She remained there for a few days, and returned with the diagnosis of general endocrine dyscrasia. May, 1923, she was placed on pituitrin, antuitrin and Thyroid by mouth and pituitrin intramuscularly. July, August and September she has had normal three-day periods. October period lasted one day with dysmenorrhea, November, December and January three-day periods, and a loss of five pounds in weight. Since then she has stopped treatment. Was last seen in May, 1924. Her periods are again becoming irregular. She has missed three months. Believevd she was pregnant, but examination revealed no pregnancy.

Case No. 4. Posterior lobe insufficiency, postadolescent.

Mrs. U., age 58 years.

Chief complaint: Nervousness, polyuria, obesity. Obesity came on after menopause at 46 years. As a young girl was slender. Weight increased considerably after first child. At 46 years weight was 175 pounds. Present weight, 265 pounds. Polyuria and pollakiuria very troublesome the past year. First noted three years ago. Output varies from 2000 to 2800 cc. Persistent low specific gravity 1.004-1.008. Thirst pronounced.

Physical examination: Height 65 inches. Vertex to symphysis 62 inches. Symphysis to soles 63 inches. Span 30 inches. Classical pituitary facies, small hans and feet. Extreme obesity. Hypogastric padding hangs below mons. Mammae are immense. Definite pelvic girdle. No distinctive thyroid findings.

Treatment: This patient was placed on pituitrin by mouth and intramuscularly. There was but a

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small loss of weight—20 pounds at the end of three months. There was definite improvement in the urinary symptoms. Thirst was diminished as was the output and frequency. Output varied from 1400 to 1800 cc. Patient discontinued treatment because she had an early paralysis agitans which did not improve but became progressively worse.

According to Englebach the therapeutic dose of pituitrin is one which is just below that producing intestinal cramps. He advises that the initial dose of 5m. be given, increasing 1 or 2 m. at each successive visit. There is no reason for giving larger doses as the same results can be obtained with less discomfort to the patient. As Billing states, pituitary body dessicated either posterior or anterior lobe or whole gland is destroyed by the digestive juices of the stomach. If this form of treatment is to be used alone it is well to place it in an enteric-coated capsule. I have had very little result with oral administration alone, but give it after the patient has had some relief from their complaint or have reached a fairly optimum weight. In children it also is given by mouth after active treatment has been discontinued. The best results should be obtained in the juvenile or preadolescent types because of the possibility of stimulating the pituitary body to resume its normal function. The earlier the other types are recognized the better should be the effect of substitutional therapy. In cases of long standing it is a matter of continuous substitution just as in the hypotyroid condition when treatment is discontinued or when obesity, somnolence, etc., will soon return. Thyroid is usually given, where tolerated, in therapeutic doses because of the secondary involvement of the thyroid.

In conclusion, I feel that even though the active hormone of the hypophysis has not been isolated some small measure of therapeutic results can be obtained by substitutional therapy.

DIABETES IN MICHIGAN

W. J. V. DEACON, M. D.

LANSING, MICHIGAN

In view of the newly awakened interest in diabetes, due to the recent discovery of insulin, it seems appropriate at this time to survey the problem in Michigan, that we may have definite information readily at hand.

The last few years have witnessed a marked increase in the number of deaths from this cause in this state. The average rate for the twenty years, 1900 to 1921, in Michigan, was 14.2 per 100,000 population. This increased in 1923 to 16.5, equivalent to about 16 per cent. This increase has been more or less uniform throughout the country. By reference to the chart, Fig. 1, there will be found a comparison of the rate in Michigan with the United States registration area for the ten years, 1913 to 1922. It will be noted thereon that there was a sharp decline between 1915 and 1916, 1917 rising in Michigan but not in the United States registration area, after which the rates fall rapidly until 1919, when the rate for the registration area rose abruptly and continued so to 1922, rising from 14.9 to 18.4. In Michigan the 1920 rate was slightly lower than the 1919 rate, after which it also rose sharply from 15.5 to 17.9. The 1923 figure, which is not yet available for the registration area, indicates that in so far as Michigan was concerned, there was a slight drop. The reason for this fluctuation is not easy to explain, except in relation to 1919, which followed the influenza pandemic of 1918 and was to be expected, as it is a recognized fact that after a severe epidemic of any acute disease, the following year or two will show a decrease in deaths from those afflictions which continue for a longer period of time.

In every population there is always a percentage of persons who, by reason of age, organic disease or infirmities are alive only by

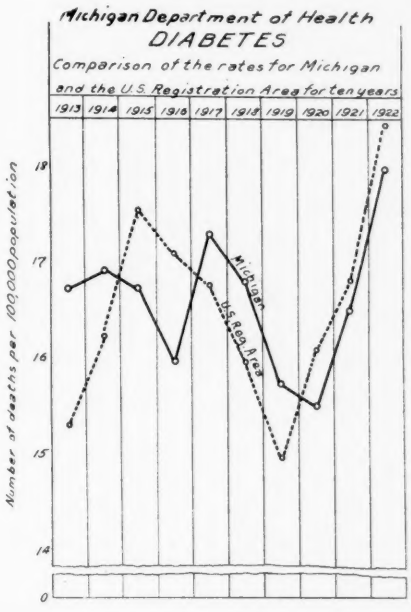

Figure 1

fortunate circumstances, and any unusual condition will result in their passing out, leaving only the more robust and thereby tending to reduce the death rates for the succeeding year or two. It is entirely probable that the slight decrease between 1922 and 1923 was accidental and not due materially to any improved condition.

The next question that naturally arises is the relation of Michigan to other states. Of the thirty-seven states in the United States registration area in 1922, Michigan occupied twenty-second place, the highest rate being in New Hampshire and the lowest in Mississippi. This is illustrated in the chart, Fig. 2.

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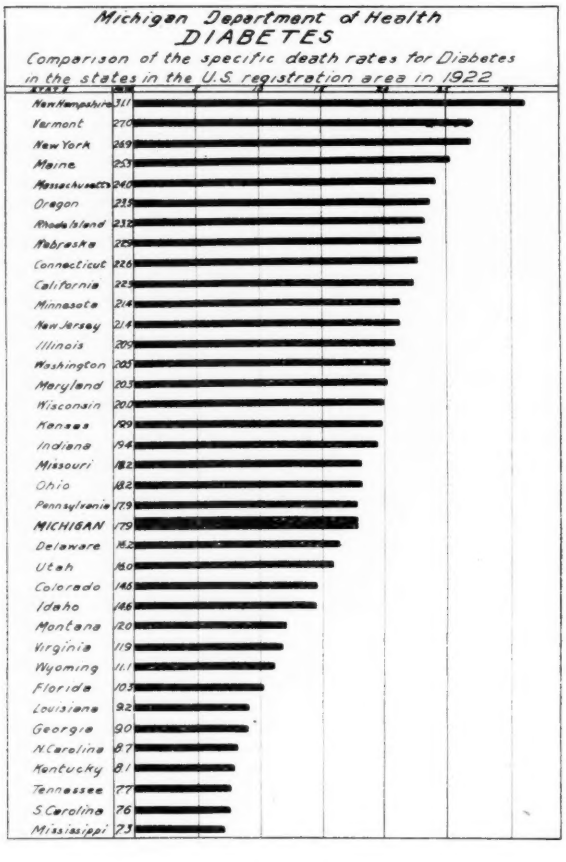

Figure 2

TABLE NO. 1

DIABETES

Comparison of the number of deaths per 100,000 population in the states of the United States Registration Area for 1922, and the percentage of population over 45 years of age, 1920 census.

State	Diabetes Death Rate	per cent of population over 45 yrs.
New Hampshire	31.1	28.5
Vermont	27.0	28.5
New York	26.9	22.5
Maine	25.3	28.1
Massachusetts	24.0	24.2
Oregon	23.5	24.4
Rhode Island	23.2	23.3
Nebraska	22.9	20.5
Connecticut	22.6	22.2
California	22.3	26.1
Minnesota	21.4	20.7
New Jersey	21.4	21.1
Illinois	20.9	21.6
Washington	20.5	22.7
Maryland	20.3	22.3
Wisconsin	20.0	22.1
Kansas	19.9	22.4
Indiana	19.4	24.8
Missouri	18.2	23.1
Ohio	18.2	23.2
Michigan	17.9	21.7
Pennsylvania	17.9	20.9
Delaware	16.2	23.7
Utah	16.0	16.6
Colorado	14.6	21,9
Idaho	14.6	18.3
Montana	12.0	18.4
Virginia	11.9	18.5
Wyoming	11.1	16.2
Florida	10.3	19.4
Louisiana	9.2	16.1
Georgia	9.0	16.0
North Carolina	8.7	16.1
Kentucky	8.1	19.9
Tennessee	7.7	18.6
South Carolina	7.6	14.4
Mississippi	7.3	16.3

Table No. 1 gives a comparison of the death rate from diabetes and a comparison of the percentage of the population of these states over forty-five years of age.

As will be discussed later, the high incidence of death occurs after the forty-fifth year and it would therefore naturally appear that those states having the largest percentage of their population above this age, would have the highest death rate. That this is not entirely true will be found by reference to Table No. 1, which gives this information and the same is illustrated in Fig. 3. While there is perhaps a somewhat general similarity between these two elements it is not close enough to justify the theory that this is the only factor to be considered.

In Fig. 4 will be found a comparison of the percentage of deaths for each month from diabetes, in comparison with the percentage of total deaths. It will be observed that from August to January, diabetes deaths are considerably higher than the total deaths, but that in February they were considerably lower, but higher again in March and April. Thus from August to April, with the single exception of February, they are well above the total deaths. This would indicate that for some reason which we do not understand, diabetes patients die much more readily during the cold months than

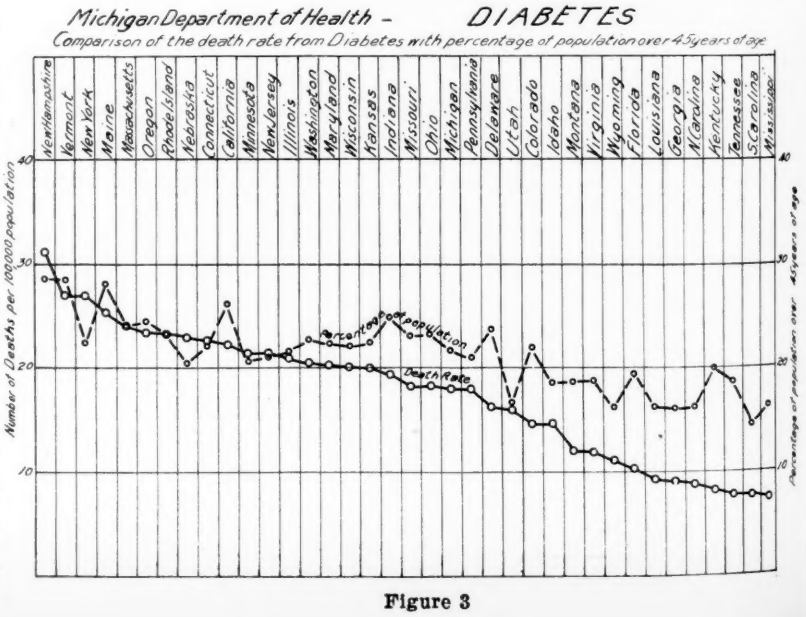

Figure 3

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during the summer. This chart is based on the average deaths for three years and adjusted according to the length of the month. It seems that this difference in February must be found in the fact that February being a

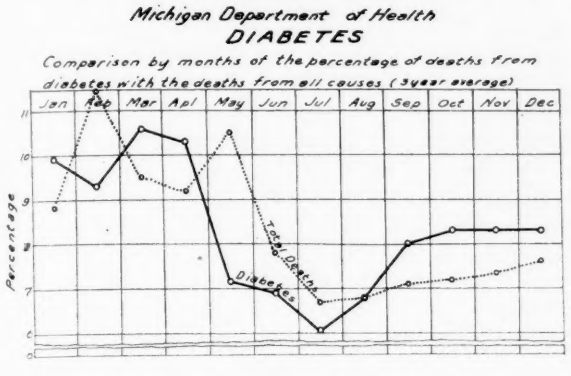

Figure 4

month of high incidence of respiratory disease, it is probable that many diabetes deaths were caused by intercurrent infections and were therefore assigned to other causes, owing to the failure on the part of physicians to state the presence of diabetes. Under the rules of practice used generally throughout the United States in registration offices, where diabetes is stated on the death certificate, it takes precedence over all other causes with which it is reported jointly as a contributory cause except diphtheria, typhoid fever and tuberculosis. A death stated to be from pneumonia with a contributory cause of diabetes would be included in the diabetes deaths but, of course, where no statement of any existing diabetes was on the certificate, there is no opportunity to do other than to include it in the cause stated.

The age distribution is shown graphically in Fig. 5. This chart is based on the 3,035 deaths which occurred in Michigan in the five years 1919 to 1923 inclusive. It will be observed that there is a sharp rise in the number of deaths at twelve years of age, a slight increase at about the thirtieth year and beginning with age forty it rises rapidly to a mode at the sixty-sixth year, after which it falls abruptly, to disappear between ninety and one hundred years.

In the consideration of the female curve, it is found to start below the male curve, but passing same about the seventh year. The same sharp rise is observed at age twelve as is found in the total curve and after which it descends to considerably below the male curve and then gradually approaches the same and crosses at about the thirty-third year, after which in general outline it follows the total curve, but is continuously above the male curve.

The male curve shows a slight rise between the tenth and twentieth year, again about the thirtieth year, and again about the fifty-third year, but approaches its mode at about the sixty-seventh year and almost five years later than the mode is found in the female curve.

The more accurate picture, however, of just what this means, is found in the illustration, Fig. 6. This is a comparison of the specific death rate for each age group by sex for the five-year average. This, however, does not tell a materially different story from the preceding illustration. The female rate in its relation to the male rate is in approximately the same proportion until the age group seventy to seventy-four, where it shows a sharply slower rise to the group seventy-five to seventy-nine and a drop from that point to the eighty and over group. This would probably mean that the female diabetics die at an earlier age than the male.

For the five-year period we find the rate for the males to be 13.9 and for females 18.2. This agrees generally with the findings of Emerson and Larimore in the Archives of Internal Medicine, November, 1924, and from which we quote: "The facts revealed by mortality statistics are particularly worth bearing in mind, when one recalls the common clinical experience that more men than women are treated for diabetes, while more women than men die of this disease, in a standard population unit. This is usually explained by the fact that men more frequently submit themselves to medical examination for insurance and employment purposes, in the interest of the companies concerned or as a measure of health protection for their own sakes."

There seems to be no relation whatever between rural and urban life in this disease. In 1923 the proportion shown for diabetes deaths

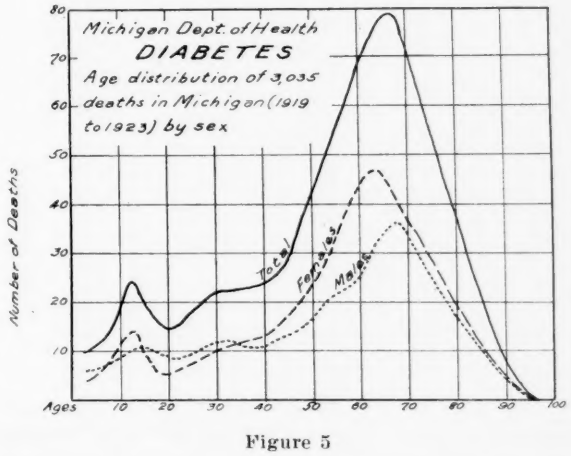

Figure 5

was 38 per cent rural and 62 per cent urban, which is exactly the proportionate distribution of the population.

The number of cases of any disease and its trend cannot be clearly defined by the lethal rates, as it has been repeatedly demonstrated that the increase of scientific knowledge as to the etiology and treatment of any disease can gradually but surely reduce the mortality in

spite of a continued or increasing incidence of the disease. This has been clearly demonstrated in the case of diphtheria, where better methods

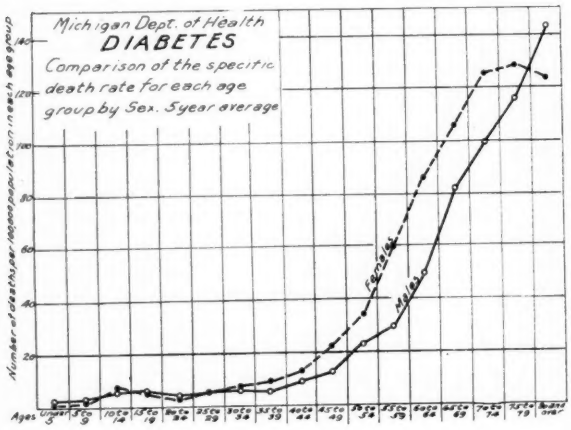

Figure 6

of diagnosis and the use of anti-toxin have reduced the fatality from 80 per cent or higher to less than 10 per cent, but the incidence of the disease has not been decreased in anything like a proportionate amount. In relation to diabetes, the use of insulin will be regarded as a means of postponing death rather than curing the disease, but if it does this, it will undoubtedly decrease the number of deaths assigned to this cause, because the postponement of a disease, which at present presents its highest fatality after the age of forty-five, will undoubtedly result in a great many of these diabetics dying from functional or organic disease which are such important factors in the fatality in this age group. We may, therefore, expect some shifting of the mode towards the higher age groups and a definite lowering of the same. It must also be considered that the use of laboratory aids will enable earlier diagnosis, and the imposition of dietary and therapeutic treatment will result in a further postponement, if not a cure, of this disease.

INTRA CRANIAL HEMORRHAGE IN THE NEW-BORN

THOMAS D. GORDON, M. D.

GRAND RAPIDS, MICHIGAN

During the last ten years much has been learned about intra cranial hemorrhage. There remains, however, a good deal of difference of opinion about certain phases of it and it is some of these unclear points which I wish to bring up for discussion.

We are pretty well agreed that it is very frequent and is the most common cause of death in the new-born. Also, that there must be a very large number of non-fatal and even mild cases, many of which cause no symptoms and cannot be recognized.

One of the most difficult phases is the proper evaluation of the several usual causative factors. At first the hemorrhages were nearly all thought to be of traumatic origin, but of late we hear much more about asphyxia and venous congestion, and hemorrhagic disease as being more important than birth trauma. Munro and Eustis of Boston state that since their modification of Warwick's classification to include their "Asphyxia" group they find a relatively small number of traumatic cases. They state "that the primary cause of the rupture of the vein and consequently of the hemorrhage is the asphyxia." Esch considers intra uterine asphyxia as the most important etiological factor. He points out that the congested intra cranial veins cannot withstand the normal or physiological amount of overlapping of the cranial bones and that the amount of bleeding from a tear of the small veins is much increased by the abnormal pressure within the veins. Seitz thinks that asphyxia is the usual cause of even very large hemorrhages. All through the newer obstetrical literature we hear less about trauma and more about so called intra uterine asphyxia.

From the standpoint of prophylaxis this view may have several dangers. In the effort to prevent intra uterine asphyxia or to rapidly extract a child showing signs of asphyxia more force must be used and more trauma to the child result. This has been well brought out by Pierson of the Sloane Hospital for Women in New York in his study of the birth injuries in breech deliveries. Sloane refers to the "Hurried conduct of labor and delivery" as an error in obstetrical judgment, and states that "Frantic haste, as opposed to deliberate skill," has killed many babies in delivery. Potter sometimes allows fifteen or twenty minutes to elapse between the birth of the navel and that of the child's head in breech delivery without the occurrence of fatal asphyxia.

We must remember, too, that conditions are quite different in a university maternity hospital attended by skilled obstetricians than they are where we, as pediatricians, are called in to see a child in private practice because on the second day it refuses to nurse. The chances are much greater of there having been considerable trauma in the delivery. In my small experience of eleven or twelve cases of intra cranial hemorrhage physiological or pathological birth trauma has been a very important factor in the majority of them, and it is much safer to consider that compression of the child's head is the primary cause and that asphyxia and venous congestion are predisposing and contributing factors.

While we occasionally see intra cranial hemorrhage in children born by Caesarian section and after so called easy normal labor, it occurs more frequently in prolonged labors, contracted

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pelvis, forceps delivery, and version or breech presentation. The skill of the obstetrician in avoiding undue trauma to the child's head is an important factor in prophylaxis.

Prematurity acts in much the same way as asphyxia. The head of a premature child is relatively large, it is softer and more moldable, the premature child is more subject to asphyxia, the dura and the vessel walls are unripe and friable and there is apt to be some underlying cause for the child being premature, such as separation of the placenta, eclampsia, or other disease of the mother, all of which may predispose to intra cranial hemorrhage.

Especially since Rodda's excellent work we have heard a great deal about hemorrhagic disease as a cause of subdural hemorrhage. It certainly may be an important factor in some of the later cases, that is, those cases in which the symptoms only appear three or four days after birth. The physiological delay in the coagulation and bleeding time which appears on the second or third day may certainly increase or renew the hemorrhage in a case which has had an entirely different cause.

In a good many cases more than one of these factors play a part. Trauma may be combined with asphyxia, or asphyxia with prematurity, or prematurity with hemorrhagic disease, or any other combination may occur. It is very important when confronted with a possible case to inquire carefully into the birth history, the appearance of the child directly after birth, the degree of asphyxia and the method of resuscitation.

A great deal of confusion also exists as to the best way of classifying these cases clinically. Warwick's classification into the Birth Trauma Group, the Venous Congestion Group, and the Foetal Disease Group has been pretty generally adopted, but as mentioned before, more than one of these causative factors are often present in one case.

Seitz' classification into supra tentorial and infra tentorial is now considered impractical from a clinical standpoint because of the similarity of the clinical pictures, especially in the later stages, and because of the frequency of mixed forms. Esch divides his cases intot those with symptoms appearing immediately after birth and later cases. He also advises making an anatomical diagnosis when possible, that is, a location of the hemorrhagic area from the symptoms and signs. This is, of course, of great value if a surgical decompression is to be done, but unfortunately, in many even of the severer cases there are no localizing signs. In this connection might be mentioned the value of a subdural puncture going through the outer angle of the anterior fontanel. This is used very commonly in the clinics in Vienna and is considered a very valuable and harmless procedure to aid in localizing the hemorrhage, but has never been very extensively adopted in this country. It certainly is less dangerous than a ventricle puncture or a cysterna puncture, and should be of value preceding a decompression in indicating on which side an operation would give the best result.

Time will not permit of an enumeration of the symptoms of intra cranial hemorrhage, but we are all pretty well agreed that they are caused by increased intra cranial tension due to an acute hydrocephalus and oedema resulting from an interference with the reabsorption of the spinal fluid rather than to direct pressure of the extravasation of blood. The value of lumbar puncture and an estimation or measurement of this increased pressure is pretty well recognized; and the value of repeated lumbar punctures for the relief of this pressure is generally accepted. It is a method of treatment which is available to a great many more cases than a surgical decompression and I believe promises more with much less risk. We have one case which is now normal at three years of age, which showed a very bloody fluid at the first puncture and an apparent cure after the third puncture.

A third phase of this subject which is as yet unsettled is the relationship between birth hemorrhage and later nervous and mental diseases. The opinion is quite generally held in this country that intra cranial hemorrhage and its associated increase in intra cranial pressure produces certain chronic changes in the infant's brain of circulatory, inflammatory, or trophic nature. That depending upon the extent of these organic changes, a greater or less degree of mental and physical deformity will result. That a very common cause of the infantile hemiplegias, diplegias, and paraplegias, of imbecility of varying degrees and possibly of epilepsy is birth injury. Zappert, and I believe neurologists in general, consider that prematurity is usually found by a careful inquiry into the birth history in cases of Little's Disease.

This question has been approached from two different angles. Hannes has followed up all children born at the Breslau Polyclinic since 1893. In 399 cases of asphyxia and difficult or artificial labor, only two, or .5 per cent later developed epilepsy, and one of these started when it was eleven years of age. Of 157 asphyxiated babies, only 3.8 per cent showed later abnormalities after eliminating definitely hereditary cases. Of 242 difficult or artificial labors, only 1.2 per cent showed abnormalities, while of 206 normal labors, 3.4 per cent showed abnormalities. He concludes that severe labor and asphyxia do not cause abnormal mental development and idiocy any more than does normal labor and that birth injury has very little or nothing to do with epilepsy.

Schott approached the question from the reverse angle. He studied 1,100 weak-minded

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children with reference to their birth history—especially prematurity, severe labor, forceps delivery, twin or triplet birth, and asphyxia. Of these 1,100 cases of imbecliity, only 30 cases, or 2.81 per cent had birth injury as the sole cause, although 150, or 13.63 per cent gave a history of birth injury plus hereditary taint. He also studied 1,100 cases of epilepsy and found birth injury as the sole causative factor in 1.09 per cent. Birth injury plus heredity occurred in 8.54 per cent. In no case could prematurity alone have been the cause. He concludes that for a birth injury to produce imbecility or epilepsy there usually is a predisposing, inherited factor in the infant's brain resulting from disease of the parents, especially the mother. This heredity element may be imbecility, insanity, epilepsy, alcoholism, etc.

He found that premature babies were more likely to develop nervous diseases and Little's Disease. Also that severe labor or birth injury may produce a less resistant brain more liable to result in imbecility after suffering in childhood from head injury, meningitis, or scarlet fever.

These valuable statistics seem to indicate a somewhat more favorable prognosis for cases of intra cranial hemorrhage and should give us courage to treat these unfortunate infants without so much fear of late results. It is surprising how frequently one encounters an attitude of physician and parents that if this child is not going to be normal mentally or physically it would be better to lose it now before the parents become attached to it. They use this argument in withholding permission to do a lumbar puncture. By assuring them that a great many cases of intra cranial hemorrhage have developed into normal healthy children and that the child's chances are very much better with the pressure relieved we can hope for more co-operation from the family physician and the parents.

The demonstration of intra cranial hemorrhage and tears in the tentorium at autopsy has been simplified by the use of Beneke's technique. In the Pathological Department in Vienna it is done as follows: The usual scalp incision is made and the scalp drawn forward and backward. With bone scissors two incisions, three or four centimeters apart, are made parallel with the sagittal suture and the longitudinal sinus reaching from the frontal region to the occipital. An incision is then made around the skull on each side connecting the two ends of the first incisions. These two triangular pieces of skull bone and dura are removed and the brain, the longitudinal sinus, the flax, and the tentorium inspected.

In conclusion let me say that we must always be on the alert to recognize this very common condition; that birth trauma, including rough and forceful methods of resuscitation, are important factors in its causation; that we can be very hopeful for a complete cure in a good many cases; and that the late results have probably been a little exaggerated and a child born of healthy parents has at least a fair chance of remaining normal mentally and physically after an intra cranial hemorrhage.

A COMPARATIVE STUDY OF THE NEGRO AND THE WHITE PELVIS

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DETROIT, MICH.

In the course of our work at the Prenatal Clinics of the Detroit Department of Health, a large proportion of the patients are negroes and as a marked incongruence was noted between external pelvic measurements and what one would expect to find on internal mensuration of the negro pelvis we have made a study to try to determine wherein there were normal racial pelvic differences.

A review of the literature revealed some broad statements concerning racial pelvic differences, but very little of definite pelvic mensuration to accurately define these differences. Practically all of the researches except that of Riggs, of Johns Hopkins Hospital, have been done with the skeletized pelvis so that the inferences to be drawn from those researches cannot be accurately applied to our work as we are dealing with measurements in the living subject and their interpretation.

We, therefore, set out to measure and record the measurements of every negro patient who was apparently of pure negro blood as evidenced by color of skin, shape of skull, thickness and protuberance of lips, protruding jaw, and shape of forehead and nose, avoiding any who showed any marked aberration from the usual negro type or showed any evidence of pelvic deformity.

The study here presented involves three hundred normal pelves with the result shown in the accompanying tables.

For purposes of comparison the average normal measurements of white pelves are given together with the average negro measurements in Riggs' series. The measurements of the white pelvis with the exception of the pelvic height have been taken from modern text-books on obstetrics.

The interspinous diameter in the negro pelvis is on the average, about two centimeters shorter and the intercristal diameter 2.4 centimeters shorter than in the white pelvis. The difference between the interspinous and intercristal diameters is thus 2.6 cm. against 3 cm. in the white. From this fact it is apparent that the curvature of

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	Inter-Spinous	Inter-Cristal	Inter-Trochant	External Conjugate	Post.Sup. Iliac Sp.	Dorsal Sacral Length	Pelvic Height	Sacro-Pubic	Tubera Ischii	Post. Sagittal	Conj. Diag.
Average Normal (White)	26	29	31-32	19-21	9.8	12.5	21.35	11-11.7	10.5-11	6.5-7	12.5-13.5
Average Normal (Negro) Riggs'	23.99	26	30.9	19.32							12.177
Average Normal (Negro) Our Series	23.99	26.64	31.29	20.35	8.79	13.71	20.88	11.17	10.74	7.36	12,9

the iliac crest in the negro is less than in the white race beside which the breadth of the false pelvis is about 2.4 cm. smaller.

Comparison of the intertrochanteric diameters reveals that they are practically alike in both races. However, the relation of the intercristal to the intertrochanteric diameter of each race is markedly different. In the white race these diameters are 29 and 32 cm. respectively, while in the negro they are 26.6 and 31.3 cm.—a difference of 3 cm. in the white and 4.7 cm. in the negro.. This fact is noticeable in the exaggerated flaring of the thighs of the negro woman in comparison with the white.

The external conjugate or diameter of Baudelocque is practically the same in the two races.

The distance between the inner surfaces of the posterior superior iliac spines is 1 cm. shorter in the negro than in the white woman while the dorsal sacral length, measured from the depression beneath the last lumbar vertebra to the tip of the sacrum, is 1.2 cm. longer. These facts, we believe to indicate that the negro sacrum is narrower and longer than the white, a fact noted also by Van Franque. Both the longitudinal and transverse concavity of its anterior surface seem to be less marked in the negro.

As we were unable to find any allusion to pelvic height in measurements made in the living by other investigators we have measured a number of normal white pelves in order to arrive at an average value for purposes of comparison. The pelvic height is the distance between the tuberosity of the ischium and the highest point of the crest of the ilium and a few words as to the method of obtaining this measurement would perhaps be of interest. The patient is placed on the right side with the upper leg flexed strongly over the abdomen. The tuberosity of the ischium may then be felt laterally to the anus in the gluteo-femoral crease. One tip of the pelvimeter is placed upon the tuberosity and firmly held while with the other tip the highest point on the crest of the ilium is sought. Firm pressure is made in order to bring the tips of the pelvimeter into close proximity to the bones and the reading taken. One centimeter is deducted from the reading to allow for overlying tissue. As reported in a previous paper, we believe this to be an important measurement in the diagnosis of rachitic and generally contracted pelves.

The average pelvic height in the white woman we have measured is 21.35 cm. while that of the negro pelvis is 20.88. Thus we have found by measurements that the negro pelvis is not higher than the white pelvis, but averages about .4 cm. shorter, a difference that for comparative purposes, may be disregarded. However, Riggs has stated that the negro pelvis is higher than the white, a statement which according to our investigation, is contradicted.

The dimensions of the pelvic outlet in the negro, as shown in the table, correspond in all respects with the white except that the posterior sagittal diameter is slightly larger in the negro, which may account in part for the relative infrequency of perineal laceration.

Thus far we have considered only the external measurements of the pelvis. From these it is possible only to estimate the probable form of the pelvic passage, but the most important information is gained on internal examination. Unfortunately the internal diameters of the pelvis of the living cannot be directly measured so that we are forced to estimate the capacity of the pelvis without recourse to measurements except in the case of the conjugata diagonalis, which can be measured only indirectly. The conjugata diagonalis in our series of negro patients averaged 12.9 cm. which corresponds with that of the white pelvis. However, there are several other interesting features found by digital examination which, although they may not be described by measurements are nevertheless quite constant. The pars iliaca and pars pubica, which are the only palpable portions of the linea terminalis in the living subject, are more easily reached throughout their length in the negro pelvis than in the white, seeming to lie nearer to the pelvic outlet. As our investigation has shown that the negro and white pelvis are of approximately the same height from ischial tuberosity to iliac crest it would then seem that the height of the ilium from the linea terminalis to its crest is larger in the negro, a characteristic which both Vrolik and Van Franque have noted in dried pelves. It may be that this fact has led the observers who have dealt with skeletized pelves to state that the negro pelvis is higher than the

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white while it is true only of the false pelvis.

On internal examination of the white woman the linea terminalis may be plainly felt as a distinct, ledge-like border, on each side of the pelvis and throughout its extent is uniformly curved so that it feels markedly concave to the examining finger. In the negro pelvis, on the other hand, the linea terminalis is rounded so that it is not as plainly felt as a boundary between the false and true pelvis. It is of course concave, but the concavity is definitely not as marked as in the white pelvis, giving one a distinct impression that the linea terminales are closer together, in other words, that the inlet is not as broad in its transverse diameter as in the white pelvis. Vrolik and Van Franque have also noted this characteristic in their studies of skeletized pelves and they state that while the transverse diameter is narrow it is still larger than the antero-posterior diameter of the inlet. Von Siebold goes still farther in saying that the antero-posterior diameter in the negro pelvis is larger than the transverse. It is indeed unfortunate that measurement of the transverse diameter in the living is impossible because the shortening of this diameter is apparently one of the most regular of the characteristics of the negro pelvis.

The distance between the ischial spines in the negro seems also to be shortened, but, as our attempts to measure this diameter with an internal pelvimeter were not successful, the degree of shortening cannot be expressed. Van Franque gives this diameter as 8.2 cm. while the average in the white race is 10.5 to 11 cm.

For the purpose of graphically representing the more important conclusions reached in our study we present a drawing of the white pelvis taken from Breus and Kolisko together with a drawing of our conception of the negro pelvis as described in this communication. The diagram of the negro pelvis has been drawn to the same scale as the white pelvis and has been constructed according to the average measurements obtained in our series of negro patients.

The most striking contrast which you will note in the two diagrams is furnished by the shape and dimensions of the inlet. The antero posterior diameter in each figure is practically the same, but the transverse diameter in the diagram of the negro pelvis is somewhat shorter than in the white pelvis. This is in accord with our findings on examination of this series of negro pelves both by external pelvimetry and by internal palpation. While the shape of the inlet of the white pelvis is roughly a transverse oval,

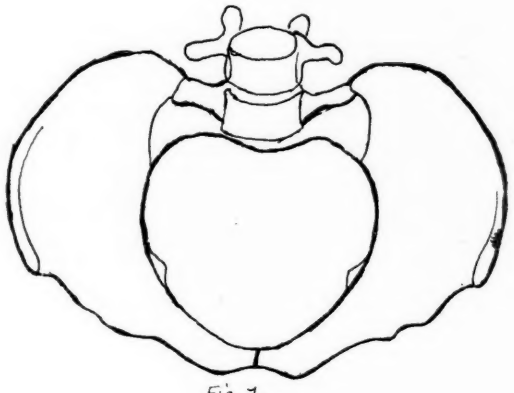

Fig. 1
White Pelvis

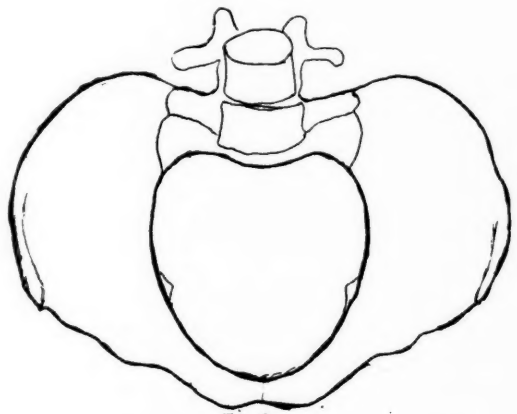

Fig. 2
Negro Pelvis

that of the negro pelvis is more nearly round, the antero-posterior diameter more closely approaching the size of the transverse. C. Martin, Van Franque and Vrolik have all also noted this characteristic in their studies of dried negro pelves. Accordingly, the available room for the passage of the negro infant during birth is materially lessened and, all other factors being equal, we would expect that the negro woman would have a longer, more difficult labor than the white women, This, according to our experience, does not seem to be the case, which may perhaps be explained by the increased size and openness of the sutures and fontanels of the negro infant's head, making it more capable of being molded to fit the smaller pelvic space.

SUMMARY

Brief comparison of the negro with the white pelvis then reveals the following characteristics present in the negro pelvis:

1. The intercristal and intertrochanteric diameters are smaller.
2. The iliac crest is less curved as evidenced by the smaller difference between the interspinous and intercristal diameters.
3. There is a greater difference between the intercristal and intertrochanteric diame-

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ters making the flaring of the thighs more marked.

4. The sacrum is narrower and longer and the concavity of its anterior surface is less marked both longitudinally and transversely.

5. There is practically no difference in the measurements of the pelvic outlet except that the posterior sagittal is slightly larger.

6. The ilium is higher, the palpable portion of the linea terminalis lies nearer to the pelvic outlet, is more rounded and less curved.

7. The transverse diameter of the inlet is smaller while the antero-posterior diameter is practically the same, the shape of the inlet thus being more nearly round.

8. The ischial spines are nearer together.

9. The whole pelvis is narrower transversely except the outlet.

While the purpose of the study outlined in this communication has been chiefly to ascertain the racial differences between the white and negro pelvis we believe its results throw an interesting light on the question of evolution.

Vrolik has stated that the female negro pelvis is similar in many respects to the pelvis of the female gorilla and while that statement has been challenged by Von Franque, we believe that a number of characteristics of the negro pelvis brought out in this paper point to an evolutionary relation between the white, negro and gorilla pelvis.

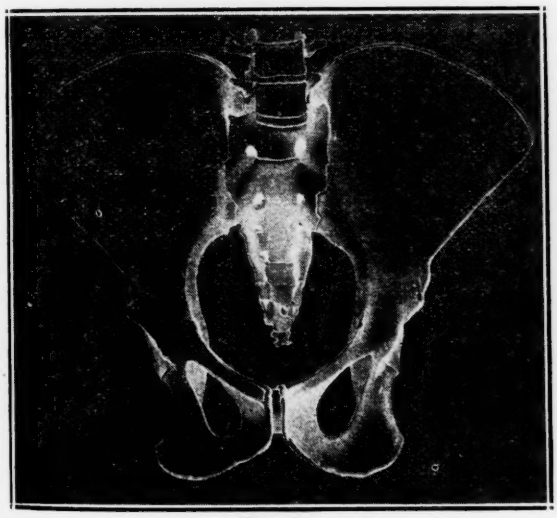

Fig. 3
GORILLA PELVIS

Romer, in his description of the gorilla pelvis, states that the ilium is very high, the interspinous diameter is larger than the intercristal, and the inlet is antero-posterior oval, the antero posterior diameter being much larger than the transverse.

Inspection of the drawing of the gorilla pelvis as presented by Von Franque shows that the sacrum, as compared with the rest of the pelvis, is very long and narrow and the longitudinal concavity of its anterior surface is apparently very slight while the transverse concavity has apparently been replaced by a slight convexity.

Bearing in mind these few characteristics of the gorilla pelvis and the facts which we have brought out concerning the negro pelvis it seems but logical to conclude that the negro pelvis shows a reversion toward the type found in the lower animals.

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DENTAL PROBLEMS OF CHILDHOOD FROM THE PEDIATRIC STANDPOINT

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Within the last few years, physicians and dentists have come to be more and more of the opinion that dentistry and medicine overlap, and that health is frequently a problem, neither of dentistry nor medicine, but of judicious mixture of these two arts. What I have to say is a plea for a better understanding of this composite problem as it affects the well-being of children.

The effect of the condition of a child's health upon the development of his teeth is a standard subject for text books; but strangely enough the reverse of this, the effect of the condition of a child's teeth upon his health, which is of vastly more importance, is scarcely even mentioned. Indeed, with the exception of a chapter on the subject by Still in his "Common Diseases and Disorders of Childhood," I cannot recall a satisfactory article on this subject. Still, who is a sane ob-

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server, remarks on the marked coincidence of malnutrition with diseased condition of the teeth.

There are a number of possible causes for this malnutrition:

1. It may be due to pain which prevents a child from eating proper amounts or properly masticating that which he eats.
2. The presence of decaying or decayed food residue in the mouth may in itself have an inhibiting effect on the appetite.
3. In the absence of definite specific infection (aside from that affecting the tooth structure itself) such an unclean condition of the mouth may afford excellent culture medium and environment for the growth of organisms pathogenic to the body.
4. There may be absorption of toxic products from chronic abscesses of teeth roots or adjacent structures such as we know is frequently present from chronic infection elsewhere in the body.
5. There may be definite metasteses from such an area of infection to other parts of the body.

In the absence of definite information as to the validity of any of these hypotheses we can only say, that all sounds reasonable. Some would appeal to me as more probable than others. Whatever be the mechanism, we know, empirically, that diseased conditions of the teeth and peridental tissue are responsible for ill health.

Still quotes case histories of children in whom malnutrition, digestive and nervous disturbances were cured by dentistry alone and we have had similar experinces both in individual cases and in bulk.

Dr. Davis cites the case of one school room of some forty children in one of the poorer sections of the city where dental conditions were worst. Every child in this room had its teeth given all necessary care. In the following six months absences in this room were reduced 80 per cent and the whole class did an extra half years work. That this was due to dentistry alone would scarcely be a fair claim since there are so many other variable factors, but certainly we must allow the dentist some credit.

If we admit that teeth may affect the health directly or indirectly, then we would wish to know the incidence of these cases and what may be done in the way of prevention. The incidence of dental disease is well known. In the examination of some 10,000 school children in Flint in 1918, about 8,600 were found to be in need of dental care, and of these 2,500 had definite infection present as shown by abscess or sinus. These figures are typical. What does this signify to us as physicians? I confess I do not know what ultimate remedy will be available to the 86 children out of every hundred who need it. I am convinced that we can, however, make a beginning at getting the conditions righted. First, I think by becoming accustomed to examining the mouths of our patients. No physical examination is complete without an examination of the mouth nor is an examination of the mouth worth while unless we have some idea as to what we are looking for. Also we can interest the mothers in the preservation of the deciduous teeth. We see these children as a rule, years before the dentist does and often by the time they get to him irrepairable damage has been done. If we can get our patients to the dentists early enough, we will have done a great deal toward cutting down the amount of dentistry needed and its cost.

To begin properly at the beginning the dental care of the child should start with the obstetritian; for the quality and often the fate of the deciduous teeth is largely decided by the health and diet of the pregnant mother.

Children's teeth usually interest the mother first when the baby is about six months old. Mothers are then anxious to know, when and in what order the deciduous teeth will erupt. When this process is completed, at the age of thirty or thirty-six months, they apparently forget there are teeth until one begins to ache or a so-called "gum boil" puts in its appearance. These events do not always receive the attention they deserve. Most people seem to feel that an occasional tooth ache is one of the inevitable penalties of being a child. We should tell them that the first tooth ache may mean a tooth well along the road to destruction through neglect, and that a "gum boil" means an abscess, the only treatment for which is often extraction of the offending tooth. An abscess on any visible surface which discharged for a week or more would cause considerable concern, but how often do we see children with from one to four abscesses in the mouth which have persisted for months and sometimes years. Such infection constantly present can not help but be seriously harmful to the child's health.

In the physical examination of a good many thousand school children over a period of four years, one fact which has been repeatedly impressed upon my mind is the frequent association of mouth infection with diseased tonsils. In the beginning of our school work it seemed logical to clean up all mouth infection before removing tonsils, assuming that the tonsils were one barrier to systemic infection. Many of the children

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would have dental work completed and then refuse tonsillectomy. A year later, examination of those same children by the same examiners would find apparently normal tonsils. So frequently did we find this to be the case that we stopped advising tonsillectomy in children with bad mouth infection, referring them instead for re-examination six months or a year later, after dental work had been completed.

Finally from the standpoint of the physician, I would ask that the dentists view their patients as a complete individual and not as a problem in mechanics. We see too often a chronic abscessed tooth in a child whose mother says she had been to the dentist and he refused to pull the tooth because it was needed to preserve the arch. That may well be and yet in my opinion a healthy child is of more importance than perfect acclusion if we can have but one of these two possibilities.

DISCUSSION

Dr. Russell W. Bunting, D. D. S., College of Dental Surgery, University of Michigan, Ann Arbor: The paper which Dr. Jones has just presented calls attention to certain problems which lie in that border line between medicine and dentistry, or rather, as he says, are of equal importance to both professions. These are problems of first magnitude, the significance of which we but lately have begun to realize and the solution of which will demand the best minds and the best efforts of our allied groups.

Dr. Jones has stated that dental disease and infections, especially dental caries, is very common. In fact, dental caries is the most common disease known to man affecting from 85 to 95 per cent of our population. Whatevevr is common is usually regarded as proper and accepted as a matter of fact. Thus for many generations dental caries has been accepted as a matter of course and of secondary importance. The treatment and repair of carious teeth especially in children was looked upon as a matter of choice on the part of the individual, a somewhat desirable procedure, but not at all necessary, more that of a luxury to be indulged in by the wealthy and affluent. The more recent scientific findings which have shown so clearly the far reaching significance of dental disease and infections have placed these all too common conditions in a different light and have commanded the attention of all who have to do with public health. Physicians, dentists, health workers and public spirited laymen are everywhere becoming keenly aware of the situation and are ready to join hands in seeking to solve the problem. The question now before us is, where shall we begin?

Your essayist has stated the problem as one dealing primarily with children and with this we find ourselves in full accord. Goethe said, "Little can be accomplished for grown-up people; the intelligent man begins with the child." This is specially true of the problem of dental disease for it is in childhood that the greatest damage occurs. The adult has already suffered the greatest initial attack during his life time, his future difficulties being largely that of combating the effects of dental disease which occurred during the early years of his life. Therefore the problem, if it is to be solved at all, must be met during the early years of life, that period in which you who are included in this group have the major interest and to which you are devoting a large part of your professional activity. It is then the pediatrician who must take a large part in the application of whatever measures of dental disease prevention that may be put into effect.

Abnormal dental and maxillary development and the tendency to dental disease is undoubtedly an inheritable quality as is shown by its familial transmission. It also very definitely follows civilization as a penalty we must pay for our unnatural mode of diet and living which we perhaps may never wholly eliminate. It is our duty however, to study present day conditions to seek the controllable factors and to minimize their specific effects as far as is possible.

Dentistry has attempted to meet the situation by discovering and repairing defects as promptly and efficiently as possible, but the need of dental care in the present generation is so great that the dentists of today are caring for but a small percentage of the people who need such attention. If, for instance, the public should demand complete dental care for all children of the land today, and if every dentist should cease to work adults and should devote his entire time to children alone, it would require years to adequately meet the needs of the present generation. It is quite apparent that we can never meet the situation by any system of reparative service. It is true that, as the essayist has said, we should meet the dental needs of the child in an operative way as far as it is possible for us to do so, but the solution of the problem in any large way must begin farther back in the prevention of dental disorders before they occur.

In regard to the possibility of influencing the quality of dental and maxillary development by manipulations of the diet of the mother during pregnancy, there is no adequate proof that normal bone and tooth development may be attained in this manner. The problem of material diet as it relates to fetal development is at present but imperfectly understood. It seems improbable that the permanent teeth can be directly affected to any appreciable degree during prenatal life since their calcification does not begin until after birth and therefore their development should obviously be more related to post-natal rather than prenatal conditions.

It is self evident that the mother during pregnancy should receive a diet adequate to the needs of the growing fetus, but the ingestion of such a diet does not insure good bones and teeth in the child and on the other hand, if for any reason she is unable to ingest and assimilate an adequate diet, that fact does not necessarily doom the teeth and bones to hypoplastic development. As far as we know, rickets is not present at birth, at least the anatomic evidences are wanting when the material diet has been pronouncedly inadequate. The prevention of rickets seems to lie for the most part in the post-natal period of life and there is strong circumstantial evidence at least that when the physicians by the education and direction of the public shall successfully protect the new-born child against rickets they will at the same time greatly improve the quality of tooth development.

Although prenatal nutrition and metabolism at present are often beyond control, it remains that post-natal nutrition can be much more definitely regulated and it would appear that by the insurance of an adequaute supply of calcium and phosphorus together with the activators of calcium metabolism, vitamins and sunlight, bone and tooth development may be markedly improved. If our present views

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are correct, physicians and pediatricians in particular have at their hands a most potent means of protecting children during early life from faulty bone and tooth development.

After the teeth are formed and erupted their health and freedom from disease seemingly is closely related to the diet. As far as our present knowledge goes the following four principles of dietary regimen may be said to be conducive to oral health and should be recommended to every parent for the guidance of their children.

First—The diet should be well balanced, containing the requisite and proportionate amounts of carbohydrate, protein, fat, inorganic salts, water, and vitamin principles. Special attention should be given to the inclusion of the so-called protective foods, milk and green leaf, for the additional calcium and vitamin D, which may compensate for deficiencies in that regard of the remainder of the diet.

Second—The diet should contain a considerable amount of hard foods and the soft pappy varieties should be reduced to a minimum. Hard foods, well chewed, constitute a most efficient method of cleansing the mouth. They also afford proper stimulous to the growing jaws to favor normal development.

Third—Sweets should be limited to a minimum and should not be eaten between meals. Soft, sticky candy retained about the teeth constitutes a most favorable media for the growth of bacteria that produce dental caries. Candy between meals also perverts the appetite so that the child cannot be induced to eat a well-balanced meal.

Fourth—Acid and tart fruits should be included in the diet in reasonable amounts, especially at the end of the meal. Acids are efficient salivants affording a copius flow of thin watery saliva that washes the teeth and greatly aids in the cleansing of the mouth. Fruits are an excellent substitute for candy.

The physician of today and especially the pediatrician have within their power the means of greatly improving the human race. With the great advancement in medical science and with the growing practice of mothers to consult their family physician frequently relative to the health of their children, there has arisin a wonderful opportunity to direct the new generation into a bodily development and general health that is far superior to that of former times. As far as dental conditions are concerned, the training of mothers in the known measures of dietary regimen for the growing child should greatly improve the structural development of tooth and maxillary structures. This, then, should constitute a most potent means of preventing dental maldevelopment and disease.

Dr. Orton Goodsell, Jr., Saginaw: The paper which you have just heard is the most pertinent that I have listened to in some time. Dr. Jones has in a short period of time given some very important facts which are worthy of being given great consideration by the physician, and also the dentist.

I will probably merely repeat a few of the conclusions that Dr. Jones has come to, and add a few things in a rambling fashion.

The physicians and dentists are jointly at fault in a good many cases where dental conditions are such as to influence the health of the child—the physician before the child has the full complement of deciduous teeth, sometimes after, for not recommending dental attention—and the dentists for their neglect of the children's teeth after they once have established contact with the patient. In the first instance, if the patient is not sent to the dentist the temporary teeth may be irreparably damaged, because of the fact that a great many people still believe that the best thing to do with the first dentition is to leave it alone and let the teeth decay as they will. The only way that I can account for the neglect by the dentist, is the fact that he is too busy or he has a natural antipathy towards children's work. (However in defense of the dentist, I am glad to say that I believe the men are few and far between who would retain an infected first tooth in the mouth to preserve the arch, as Dr. Jones says they occasionally do).

On the other hand, the inherent nature of the human race is one of neglect, and all the information and urging extant would not influence some people to care for themselves. However, we must not let that discourage us because health in all its phases is a matter of education to a large extent.

Along with the advice relative to the temporary teeth, the parents should be impressed with the fact that the first permanent molars erupt at about the age of six years, and they should be carefully observed because they are frequently imagined to be temporary teeth and as such are neglected. Many children present themselves, to have, what the parents imagine, temporary teeth removed, only to be amazed at the knowledge that permanent teeth are damaged beyond repair.

Another factor which I believe seriously menaces the health and mentality of the child and which is most frequently neglected, is the problem of malocclusion. Perhaps, due to heredity, or very frequently to the improper early care of the deciduous teeth, we find that we have retrusion of either or both maxillae, with the accompanying narrowing of the arches. I might add that mouth breathing, thumb-sucking, and the use of comforters, are to be heartily condemned, and attempts at correction made before the habits are fully formed. In the case of the mandible being shortened, the oral pharynx is greatly reduced in size, and invariably the tonsils are greatly hypertrophied. In the case of the superior maxilla the narrowing of the arch causes a narrowing of the nasal pharynx and promotes the development of adenoid tissue and the accompanying mentality is usually low. Whenever a physician or dentist sees a child who has a deformity he should make a definite effort to see that the patient visits the orthodontist because there is no doubt that the broadening of the arches greatly improves mentality in many instances, and also the physical well-being of the patient. The aesthetic appearance of the individual is always benefitted, as well, and is too frequently considered the only cause for orthodontia.

Again rambling on, I wish to give vent to a few things that do not necessarily apply to pediatrics alone, but to the practice of medicine in general.

The proper use of our powers of observation is our greatest asset; yet, just the other day, a girl, six years of age, was brought to my office for examination and operation of a cleft of the soft palate. The mother told me that the youngster was ten months old before the cleft was discovered, also a difficulty in feeding was noticed, and that no one had ever emphasized the need of early operation. I know that you gentlemen would not be so negligent.

Numerous patients possessing acute, suppurating, alveolar abscesses, have been told by physicians, dentists, and their next door neighbors, that the inflammation should be permitted to subside before the removal of the tooth and drainage are attempted. Yet, where else in the body, would the cause of the trouble be allowed to remain

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if it could be removed? Occasionally externally draining alveolar abscesses are treated with no thought of oral examination.

I am very glad that the aforementionel errors seldom occur, and I want to congratulate the medical profession on their co-operation with the dentists.

In conclusion, I might make these observations:

(1) As soon as a child can manipulate a toothbrush he should be given one and be shown how to use it.

(2) The parents should be informed relative to the necessity of having the preservation of the temporary teeth safeguarded. The physician can occasionally mention the need of periodical examination.

(3) Observation of developmental defects should be noted and such defects corrected.

(4) Communities should make every effort to have a large and well trained staff of dentists to care for its school children.

I heartily agree with Dr. Jones, relative to the consideration of the patient as a human being, rather than as a piece of machinery, and believe that, with that view in mind, we will all be better able to serve the purpose for which we exist.

SPINAL ANESTHESIA*

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This paper is not prompted by any desire to review the history or to comment on the slow but steady progress of local, regional or spinal anesthesia, but rather to relate in a brief way our limited experience with spinal anesthesia, in the hope of encouraging its more universal adoption as a routine procedure.

We realize many articles have been published on this subject, but, sorry to say, very few are such that the ordinary physician or surgeon is able to feel that he is capable of inducing a good spinal anesthesia. Most of the literature, in fact, leaves the impression that it is too technical or too risky for the general doctor and he muses on the subject with a fair amount of interest, but an appalling lack of courage for personal adoption of the method.

It is indeed the old story of popularizing a new method, first with the profession, and secondly with the public, both of whom are reluctant to give up the idea of general anesthesia, for major and even minor surgical procedures.

Incidentally, we might add that the public is more easily convinced than members of the profession. It is, in fact astounding to note the pleasure and general satisfaction of patients who have been operated under spinal anesthesia and it is only a matter of months to educate a community to such an advanced procedure.

The method is simple and does not require much technical anatomical knowledge. It consists only of an injection of an anesthetic agent into the spinal canal and the site of puncture varies with the extent of anesthesia required. For operations on the lower extremities, perineum, external genitalia and perineal prostatectomy, the injection is usually made between the third and fourth lumbar vertebra. For supra-pubic prostatectomy, herniotomy, appendectomy, vaginal hysterectomy, etc., it is usually made between the second and third lumbar vertebra. For operations on the organs of the upper abdominal cavity, such as gastroenterostomy, cholecystectomy and splenectomy, the injection is usually made between the first and second lumbar or the twelfth dorsal and first lumbar. In other words, the height of an injection depends on the height of anesthesia required. Under no conditions is an attempt made to produce anesthesia above the level of the diaphragm.

The only instruments required consist of any good 5 c.c. syringe of the Luer type, fitted with a small needle for aspirating the anesthetic fluid into the syringe, and a spinal puncture needle of medium gage.

Quoting Labat, whose technic we have followed:

> "It will be of advantage to have this needle of medium length (80 mm) with a short bevel to avoid contact with the spinal cord in high punctures. Long bevels are apt to remain partly out of the sub-arachnoid space. It must be unbreakable, but should not bend too easily. Steel needles are apt to break; platinum needles become crooked after a few punctures. A nickle needle is the one of prference. Most important of all, It should have a stylet that fits the lumen smoothly and is ground to bevel with the needle. Needless to say, the needle should fit the tip of the syringe without permitting any leaks."

Although various anesthetic agents have been employed, our experience has practically been limited to novocain. This seems to be the anesthetic fluid of choice. We have used the prepared solutions put up in convenient ampules according to the method of Babcock. They contain exactly 2 c.c. of sterile novocain solution, containing .2 c.c. absolute alcohol to make the specific gravity a trifle less than that of spinal fluid. They are put up by Frank E. Morgan & Sons, Philadelphia, Pa., and can be ordered from them direct.

As a general rule, our patients have been prepared as for any type of anesthesia, receiving one-fourth grain morphine and 1/150 grain atropine, one hour before the anesthesia is induced. This pre-anesthetic preparation depends somewhat on the psychic stability of the patient. More recently, we have been using morphine one-fourth grain alone. In some instances, the patient has been told the type of anesthetic we expect to use, and others have not. This again, we believe, depends on the case, general circumstances and psychic make-up of the subject and should be left to the discretion of those in charge. It is best not to promise too much so that in case general nar-

*Read at Meeting of Staff of St. Lawrence Hospital, January 13, 1925.

cosis has to be resorted to, the patient is not disappointed, anxious or apprehensive. In talking to the patient, we generally refer to the spinal puncture as "another hypodermic." This, as a rule, causes no alarm or anxiety, as he has already experienced a similar process an hour previously.

The spinal puncture is made with the patient in the upright position, back arched as much as possible and held, as a rule, by the assistant or nurse. The landmarks for puncture are the iliac crests. A horizontal line through the highest points of the iliac crests usually crosses the spinous process of the fourth lumbar vertebra or passes between the fourth and fifth lumbar spines. This is often of assistance, although direct palpation in most subjects is a far better guide. Having located the spinous process of the desired vertebra, the puncture is made about one-fourth inch below it, holding the needle perpendicular to the skin at that place. If the needle has been properly introduced, the interspinous ligaments serve as its best guide and it easily reaches the intervertebral space. When the dura is pierced, a definite impression, as though a tense membrane had been pierced, is transmitted to the fingers of the operator.

The stylet is now withdrawn and the spinal fluid is allowed to run or drop out, depending on the pressure. From 3 to 5 c.c. are allowed to escape. The syringe, which has previously been loaded with novocain solution, is now carefully attached to the spinal needle and a very small quantity of spinal fluid is allowed to mix with its contents. The contents are then partially discharged into the spinal canal. The remainder is again mixed with a very small quantity of spinal fluid by slight traction on the plunger and the entire contents are then slowly discharged into the spinal canal. The needle is then immediately removed and the patient put in the recumbent position with head about six inches lower than his feet.

We have not found it necessary to inject the entire 2 c.c. of the prepared novocain solution, and for an average dose, we seldom use more than 1½ c.c., the surplus, of course, being discarded before mixture with spinal fluid. The dose varies with the weight of the patient and roughly amounts to 1 c.c. of prepared solution to 100 pounds of weight.

If the above procedure has been correctly done, anesthesia begins almost immediately, or at least within 5 or 10 minutes. Seldom is 15 or 20 minutes required. The patient should be informed that his legs will probably become numb and he will probably not be able to move them. The anesthesia usually lasts for one hour, sometimes more, sometimes less. In many cases there will be a marked pallor, shallow respiration, nausea and sometimes vomiting. These symptoms are chiefly dependent on the rather sudden lowering of the blood pressure and, fortunately, are not often alarming and can be overcome by having the patient take a few deep breaths. This lowering of the blood pressure occurs in almost every case. It can be partially offset by the administration of caffein and strychnin, but this is seldom resorted to in our cases. If convenient, it is of advantage to have a trained attendant sitting at the head of the patient to engage him in conversation, stimulate his breathing, and consequently avoid any annoying symptoms. Respiratory failure can occur and did so in two of our early cases, following too large a dose. The condition seems alarming, but is overcome by systematic rhythmic pressure on the base of the thorax and the injection of caffein and strychnin.

We have completed a series of over 100 cases under varied conditions, such as in the home, without trained attendants at the head of the patient, and without pre-anesthetic preparation, and have been driven to the conclusion that it is a safe and sane procedure. We have encountered failures, but they were due to faults in technic and not to the method. There have been no deaths, and the advantages have been manifold in that it permits an easy and efficient exploration of the abdominal cavity. The bowels are flat and never crowd the operative field. The abdominal muscles are relaxed and conditions are as favorable as can possibly be made for clean surgery and lowering of operative risks.

There is practically no post-operative nausea or vomiting, no distention, no lung and kidney disturbances. Normal diet may be started earlier and frequently is not even interrupted. Convalescence is naturally shortened.

We have used this type of anesthesia for the following types of operations: Appendectomy, 22; one-sided hernia, 14; double hernia, 9; perineorraphies, 9; prostatectomies, 10; hemorrhoidectomy, 7; hysterectomy, 6; D. and D., 6; other pelvic operations, 9; duodenal ulcer, 1; cholecystectomy, 1; bone plates and leg amputations, 6; cystoscopic, bladder stone and urethrotomy, 3.

CONCLUSIONS

1. Spinal anesthesia is a safe and simple procedure.
2. Anesthesia in most cases is readily induced.
3. Operative technique is rendered easier because of complete relaxation of all parts.
4. Hemorrhage is reduced because of lowered blood pressure.
5. Heart, lungs and kidneys are undisturbed.
6. Convalescence is shortened.
7. No post-operative sickness due to the anesthetic and patient may not miss a meal.
8. Spinal anesthesia causes the least disturbance to the patient.

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THE X-RAY FINDINGS IN RICKETS

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The very frequent and widely spread occurrence of rickets combined with the fact that it is characterized by fairly constant X-ray findings induced the writer to present this topic for your consideration. The fact that this disease is characterized by a diminution of the calcium content, especially about the joints and in the long bones causes skeletal changes which are easily studied by the X-ray.

The clinical picture is usually so characteristic that the diagnosis can be arrived at without having recourse to the special methods of diagnosis. From this fact monographs on the X-ray appearance of the disease have not been very abundant although in studying the literaturue one is impressed by the fact that the subject has been covered by a few authors quite thoroughly. In German we find the publications of Kohler, Hochsinger, Wahlauer, Reyher; in this country Bartjer and George have made important contributions to the X-ray appearance of rickets. The study of the bone and joint changes naturally divides itself into two groups, first the changes usually seen during the acute or florid stage and second the changes found during the period of subsidence of the acute symptoms when there is a redeposit of calcium in the frame-work tissues.

First the X-ray appearance encountered in the florid stage—the X-ray films usually show abnormal width of the bone developing area between the epiphysis and diaphysis, this is more conspicuous and more easily studied about the wrist joint, but more especially about the knee joint. The boundaries of the zone of ossification are more indistinct and hazy than are found under normal conditions. The diaphyses or shafts of the long bones show a marked loss of lime salts, evidenced by a lessened differentiation between the bone and soft tissues attended also with an increase in the bone striae. This latter appearance, of course, is found in many types of bone disease where there is a diminution of the amount of lime. The changes along the cortex of the long bones is also quite characteristic, the usual sharp cortical outline becoming very much less conspicuous both in its sharpness and width. The stage of activity is further characterized by an irregular serrated appearance of the ends of the diaphyses. This fairly constant finding of numerous small projections into the widened zone of cartilage is of considerable practical importance inasmuch as it allows fairly definite differentiation as to whether the process is active or at an end.

The appearance of the skeletal structures following the florid stage while the tissues are taking on again a lime deposit is characteristic. These appearances, of course, vary according to the stage in which the process is observed; still they are fairly constant and can be grouped together quite well. A realization of the fact that with abatement of the symptoms there is a redeposition of lime is a definite starting point in these observations. It has been remarked that in the study of rickets the condition from the X-ray standpoint is one not so much of change in the cartilagenous zone, but rather an inactivity or retardation of the process of bone growth at the extreme end of the diaphysis. With a greater activity in this zone accompanied by a laying down of lime salts we find that the diminution of lime which was so characteristic of the florid stage is disappearing. The thinness of the cortex becomes less conspicuous and the contour of the bone gradually returns to normal. The subcortical portions show a very much more distinct appearance. It has often happened in the gradual return to normal that this is not always regulated with a guage-like precision, just as in the formation of bone callus there is often an overproduction of bone so in the deposit of lime in the new bone formation about a joint after an attack of active rickets there results an abnormal wideness and sharp corners which project beyond the limits of normal. This overgrowth is sometimes described by the graphic term of the "cup" appearance or by some authors as the "cuy and saucer" appearance. The same is true if there has been a bending of one of the bones during the period of weakness making a deposit of a thick layer of new bone tissue on the concave side. As the bone grows, the layer of new bone deposited just after the active stage is over, retains its density so that in after years looking at radiographs of the long bones we find lines of extra density denoting excessive bone formation which tells the story that in some former period in the individual's life rickets had been present and had healed.

During the course of the disease fractures of the various bones may occur even following a minimum amount of trauma.

Beside these characteristic changes in the epiphyses and diaphyses there may occur a certain softening of other portions of the skeleton than in the so-called long bones.

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There occurs so-called craniotabes where there is a localized somewhat circular lack of lime in the bones of the skull. There may be changes in the shape of the skull due to the pressure of the head upon the pillow while the bones are still soft. This often gives rise to a peculiar square appearance in the skull. There may also be retardation in the closure of the fontanelles. If there is an increase in intracranial pressure during the period of softness of the cranial bones caused by rickets there will be very marked impressions of the convolutions of the brain made upon the yielding surface especially of the frontal and temporal bones, this appearance may last through life and produce some confusion in later examination. On account of the technical difficulties it is hard to show the bending of the ribs in so-called Rhicitic Rosary. Where the condition is very prominent with marked bending of the ribs so that there is marked interference with the aeration of the lungs there may occur secondary atelectatic changes in the lung fields. In adults the late results seen in so-called "pigeon-breast" are very difficult to demonstrate in the postero-anterior position, but may be shown by lateral films of the anterior chest wall. If there is a tendency to scoliosis while the patient's bones are insufficient in lime there may occur vertebral changes which will persist, and render the scoliosis permanent.

Changes may also be found in the pelvis which in women later in life may cause definite symptoms, even complicating parturition. In fact as the disease is attended by a general lessening of the lime content of the skeleton there may occur a variety of changes, generally however of minor importance.

The ossification centers of the wrists and ankles do not show definite change in the time of their appearance. There is usually no retardation in the appearance of the centers or in the carpal or tarsal bones. There are exceptions, however, to this rule. In this particular, rickets differs from cretinism where the ossification centers appear according to the mental age of the child rather than according to his actual age.

DIFFERENTIAL DIAGNOSIS

From the foregoing it will be gathered that the X-ray findings and clinical findings in rickets are usually quite characteristic with only slight liability to be confounded with other diseases. The other diseases with which the X-ray findings can be confounded are congenital syphylis and infantile scurvy. The appearances in achondroplasia, osteogenesis imperfecta and osteomalacia are less liable to be confused with rickets.

In the first month of life the joint lesions of conjenital syphylis may be confounded with rickets. However, by giving heed to the time element we have an important means of differentiation, the syphylitic osteochondritis usually appearing between birth and the first and second month, whereas the joint lesions of rickets do not occur usually until after the first year. In considering the bowing of the syphylitic bone as compared with the rachitic bone it is well to remember the old rule that the deposit of new bone in syphylis takes place on the convex surface while the deposit of new bone in rickets takes place on the concave surface.

Koehler suggests in cases where the diagnosis is doubtful from the clinical and X-ray standpoint that several joints be filmed, preferably including both the upper and lower extremities. The reason of this suggestion lies in the fact that the process may show various stages in these various joints.

INFANTILE SCURVY

The X-ray findings of infantile scurvy do not usually cause much confusion with rickets. In scurvy as in rickets, the joint involvements are multiple and periarticular swelling is present. The joint changes, however, take place on the diaphyseal side of the epiphyseal line, in contrast to rickets where the changes take place on the epiphyseal side of the diaphyseal line. The saucerization of the end of the bone is not seen and the subperiosteal hemorrhages so frequently found along the course of the femur and which are so characteristic of scurvy are not found in rickets. The characteristic findings in scurvy have the appearance of a second zone of destruction crossing the shaft located a little above and distant from the epiphyseal line, this second zone is commonly spoken of as "Trunmer. Fractures are infrequent in scurvy. It will be remembered, however, that with the healing which comes about with the proper treatment of a case of rickets that the line of new bone formation may somewhat simulate the Trumer's zone of scurvy.

In osteogenesis imperfecta the apperance of multiple fractures is characteristic of this condition, which might be confused with rickets. However, there is one important point of differentiation, namely, that the characteristic epiphyseal changes seen in rickets are entirely lacking in osteogenesis imperfecta.

Fetal rickets is a term which is sometimes applied to achondroplasia. However, most

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writers conisder that the use of the term fetal rickets as applied to this disease is somewhat of a misnomer. The X-ray appearances in achondroplasia are quite characteristic, quite as much so as the physical appearance of the patient. In achondroplasia the bones are usually shorter than normal, somewhat thicker and wider and squareness toward the formed end with a tendency at times to a knob-like formation; this lateral appearance, however, is not always constant. The pelvic changes in achondroplasia are of considerable moment, inasmuch as they frequently interfere in women with a normal parturition. The appearance of the metacarpal is usually quite characteristic of the disease and from films of the hands the diagnosis is easily made.

LATE RICKETS

A few cases have been reported where the characteristic findings of rickets have not appeared at the usual time, namely, the first and second years, but have appeared much later in life, sometimes at the seventh or eighth year. A very few cases have been recorded where thy have appeared toward the end of the second decade. There cases, however, ar so rare that they can be dismissed as o flittle import.

ADOLESCENT RICKETS

This term has sometimes been applied to changes that have occurred in the shape of the neck of the femur where softening has taken place producing a coxa vara. It is probably much better to regard these cases as of endocrine origin.

CONCLUSION

(1) The X-ray findings in rickets are quite characteristic of the disease and can be used for differential diagnosis. (2) The X-ray findings are of value in differentiating the two stages of rickets and also in studying the progress of the cases during treatment. (3) The X-ray findings in rickets, congenital syphilis and infantile scurvy are usually clear-cut and will often aid in the clinical diagnosis.

PULMONARY SYPHILIS

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A few years ago the writer in the course of his clinical studies came across a small number of cases which seemed to him to be undoubted examples of pulmonary syphilis, in which the clinical signs and symptoms were predominantly pulmonary in character. At about the same time the author's brother, then Fellow in Dermatology and Syphilology at the University Hospital, Ann Arbor, had seen some similar examples among the patients who came under his observation there. We were both impressed with the chaotic condition of the literature upon the subject and felt that an attempt should be made to organize and unify the vast amount of data already published.

The result of this attempt was a paper on "Syphilis of the Lung, an Analysis of 120 Selected Cases from the Literature," which appeared in November, 1920, in the "Annals of Medicine." In selecting these 120 cases we took only those in which the evidence of syphilitic etiology was convincing, and as a consequence no doubt excluded many cases which were uncomplicated pulmonary syphilis, but the evidence in the reports was either incomplete or not conclusive. As a matter of fact we accepted less than 1 case in every 10 reported. This series of 120 cases is, so far as we are able to determine, the largest series thus far collected and analyzed. Recently Howard has searched the literature of the last two years and collected some fifty-odd additional cases of which there can be little question of doubt.

From the foregoing it may well be said that syphilis of the lung is no longer a curiosity in medicine; on the contrary, its existence may be said to be definitely and unquestionably proven by incontrovertible evidence. Further than this we believe that it exists much more frequently than it is recognized. Howard reports 4 cases in 720 autopsy records, two of which would have been overlooked, had not clinical symptoms led to a more than ordinarily thorough study of the histology of the lungs. Carrera's finding of 12 syphilitic lungs among only 152 autopsies on syphilitic patients would also seem to give evidence for the above statement. The number of lung involvements found depends largely upon the case with which examination, both clinical and postmortem, is pursued.

HISTORY

For those interested in the history of lung syphilis there exists the excellent monograph of Beriel, the chapter by Milian in Fournier's "Traite de la Syphilis," and the thesis of Massia. Only a few references can be made here. Paracelsus, in 1500, made the first reference to the disease, though up to the time of Laennec the notions of syphilis of the lung were very vague. During the sixteenth and seventeenth centuries the diagnosis was made rather frequently by Pare, Astruc, Boerhave and Morgagni, who spoke of it as "phthisic a lue venerea", and for a time all phthisis was believed to be syphilitic. Laennec established the anatomical entity of tuberculosis of the lung and for a considerable time belief in syphilis of the lung was completely overthrown. Later Lag-

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neau, Yvaren, MacCarthy and Ricord attempted to draw attention to the condition, but its existence was for the most part absolutely denied. Sacharjin of Moscow, seems to have been the first to describe a syphilitic pneumonia in the adult and give it its name. With Virchow and his work, the real history of pulmonary syphilis began. Depaul, 1850, Widal, Dittrich, Virchow, 1858, and others described white pneumonia of the newborn. Cornil and Ranvier in France described gummata. Lancereaux in 1864 to 1866, by extremely careful and precise work in recording clinical observations, made an important advance in the subject. Porter, in 1877, read the first paper on the subject in the United States. Koch's discovery of the tubercle bacillus in 1882 again caused a tide of conservatism or scepticism toward the frequency, or in some cases even the existance of such a condition as lung syphilis. But this attitude, however, was of short duration, thanks to the advent of the Wassermann reaction and Schaudinn's discovery of the specific organism in the cause of syphilis in 1905. Since that date there has been a very marked increase in the number of cases reported. Warthin's notable contributions to the "New Pathology of Syphilis" in 1918 and since, have enabled the pathologist to recognize the disease in the absence of gross anatomical changes and have materially aided in putting the disease upon a firm foundation. Lastly, the advent of the X-ray has done considerable in the way of aiding in establishing diagnosis, though I am entirely unwilling to accept the X-ray in the absence of other evidence.

INCIDENCE

In regard to frequency of syphilis of the lung it must be stated that reports on this subject contain a large personal element depending upon the thoroughness with which cases are examined and analyzed. Much depends upon the training and the interest of the person doing the work. Thus, Claytor stated (1905) that there was not a single example of pulmonary syphilis in the entire 13,000 specimens in the Army Medical Museum in Washington. Only 10 unconvincing cases were so labeled in the London pathological collections. Backok reports only 2 cases in 6,000 Chicago autopsies, and West 2 cases in 6,000 autopsies at Copenhagen. On the other hand, however, syphilis of the lungs was found 12 times in 2,500 autopsies at Johns Hopkins Hospital; Peterson records 11 cases in 88 autopsies on cases of acquired syphilis, and Carrera, as said before, 12 cases in 152 autopsies on syphilitics. Howard found 1,499 syphilitics among 11,982 medical admissions, of whom 139 had visceral syphilis—excluding syphilis of the nervous system. His ratio of lung syphilis is visceral syphilis was about 1 to 20. At the Jefferson Chest Hospital, in the careful examination of 1,200 supposedly tuberculous patients for mistaken diagnosis, 72, (6 per cent) were proven non-tuberculous, 4 of whom were found to be pulmonary syphilis. It seems reasonable, then, to believe that the condition is often unrecognized clinically—particularly when it is associated with pulmonary tuberculosis, which, by the way, is the commonest form of syphilitic involvement of the lungs. In the French clinics, where more than ordinary pains are taken to intercept syphilitic lung cases, the incidence of the disease is affected accordingly. Thus Roque encounters 4 or 5 cases annually who come to him as phthisical; no bacilli are found in the sputum and sero-reactions for tuberculosis are negative. Inoculations into guinea pigs show nothing, while on the other hand such cases yield readily to specific treatment. Paviot also states that there often come to his autopsy table cases of syphilis of the lung which have been fruitlessly treated in clinic and hospital as pulmonary tuberculosis.

AGE

In 98 cases in which the age was recorded, the oldest stated age was 70, the youngest, 2. The grand average was 36, while the disease was most common in the early thirties. The average age of those who came to autopsy was considerably higher than those recorded with symptomatic cure because of the fact that many of these cases, like tuberculosis, tend to run a chronic course.

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The condition was found to be about twice as common in males as in females in 118 cases in which sex was noted. Seventy-six were males with 31 deaths. Forty-two were females with 21 deaths. The condition therefore seems to be more fatal in women.

DATE OF INFECTION

In 49 cases the time elapsing between the chancre and the manifestation of the lung symptoms was ascertained. The earliest cases occurred three months following infection, while the latest came to autopsy only 34 years after the chancre. The average was 11 years, a rather long interval, it would seem, and one which should be shortened materially with a better knowledge of the disease and more vigilance directed toward its detection.

ASSOCIATED SYPHILITIC LESIONS

Of the entire 120 cases, 95 (80 per cent) showed other active lesions of the disease which were recognized clinically. Half of these, or 48 cases, had multiple lesions involving more than one system. These included such divergent conditions as bone lesions, cutaneous syphilis, laryngeal involvement, tracheal stenosis, heart, kidney and liver lesions, aortitis, dis-

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eased spleen, and syphilitic involvement of the testicles. It is interesting to note that in only one case (a tabetic) was there evidence of nervous system syphilis. It is claimed by some observers that syphilis of the nervous system and other visceral syphilis do not co-exist in the same subject. Our experience would seem to speak for at least its rarety. Eighty per cent of our cases reviewed had concomitant clinical syphilitic lesions, chiefly of the bones, skin and viscera, while 40 per cent of those who came to autopsy had lesions in the liver.

CAUSES

Virulence of the infection, together with weakened individual resistance, would seem to be the greatest predisposing factors in syphilitic involvement of the lung. In only 1 case was trauma a probable factor, although a more careful history might show that trauma plays a more important role than these figures indicate. None of our cases recorded had had intensive specific treatment; in all there had been only occasional periodic or desultory medication, or none at all.

HEREDITY

White pneumonia of the new-born has been excluded from our series. Twelve cases (10 per cent) were latent manifestations of hereditary infection, all of which were markedly stigmatized, the lung lesions occurring at ages varying from 2 to 40 years. The lung lesions in heredosyphilitics are usually atypical from the usual picture of lung tuberculosis, run a rapid course and cavitation occurs early. Most commonly it is associated with tuberculosis. Indeed, Koch's bacillus has been demonstrated by three observers in white pneumonia of the newborn. (Ribadeau, Dumas et Amenille).

RECOGNITION

Syphilis of the lung is rarely recognized ante-mortem—in our 55 cases with autopsy diagnosis was made on the table in 51, but 4 cases being correctly diagnosed previous to autopsy. In 66 cases of the entire series data regarding diagnosis were given. Thirty-six cases (55 per cent) had been diagnosed as pulmonary tuberculosis. Twenty-four cases (thirty-nine per cent) were correctly diagnosed from the findings. In 16 cases (24 per cent) diagnosis was made after the appearance of associated syphilitic lesions. In 22 cases (35 per cent) diagnosis was established by applying therapeutic tests.

PATHOLOGY

Osler in 1908 stated that "with the discovery of the specific organism, we may expect more light on the difficult problem of pulmonary syphilis. On the contrary, notwithstanding the discovery of the bacillus of Koch and the recognition of the causative agent in syphilis, we may still reiterate the oft-quoted statement of Virchow, that there is no definite pathological picture which is characteristic of syphilis of the lung. The diagnosis must be made from a careful consideration of many points, and even then it is neither easy nor always possible.

Warthin in 1918 established the new pathology of syphilis and it is in the light of this that lung syphilis should be considered. And it has been so studied by Carrera working in Warthin's laboratory.

Warthin says: "The gumma is not the essential typical lesion of old or latent syphilis. It is a relatively rare formation. The essential tissue-lesion of either late or latent syphilis is an irritative or inflammatory process, usually mild in degree, characterized by lymphocytic and plasma-cell infiltrations in the stroma, particularly about the blood vessels and lymphatics, slight tissue proliferations, eventually fibrous, and atrophy or degeneration of the parenchyma. These mild inflammatory reactions are due to the localizations in the tissues of relatively avirulent spirochetes. The pathologic diagnosis of syphilis is essentially microscopic."

Carrera studied microscopically lung tissue from 152 known syphilitics and found 3 cases of gumma of the lung, 2 cases of syphilitic peribronchitis with arteritis, and 3 cases of syphilitic arteritis, though he admits that probably many more cases would have shown luetic changes had it been possible to make more thorough and extensive examinations.

CLASSIFICATION

It has long been customary to classify syphilitic lung pathology as:

1. Pneumonic forms.
2. Gummous processes.
3. Syphilitic pulmonary sclerosis.
4. Bronchiectasis.
5. Suppurative processes, ulceration and gangrene.

SYPHILITIC PNEUMONIA

The pneumonic forms, while common in the new-born heredosyphilitic, are more rare in the acquired cases. The simplest type described is the gelatinous infiltration of Hiller, being the catarrhal process of other authors (Beriel). The lobe is hard, heavy, and non-air-containing. In color it is gray or reddish, and shows a homogeneous gelatinous aspect upon section. On pressure a viscous fluid, rich in cells, exudes.

Macroscopically there are two types of interstitial pneumonia described. These types differ but slightly, the first being white pneumonia of the adult resembling the same condition in the new-born, the second being gray induration. The lesions consist of islands in the lung parenchyma the size of a nut or egg,

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though cases of lobar involvement have been reported. Interstitial pneumonia occurred in 28, or 50 per cent of the cases with autopsy. The location follows the general distribution of syphilis in the lung.

In a cut section the foci are well limited, fleshy in consistency and of elastic hardness. There is little fluid on pressure; occasionally there are bubbles of air. Crepitation is rare. The affected portions sink in water. It is most often associated with bronchiectasis or gumma, and the connective tissue shows sclerosis more or less advanced.

Fournier believed in the existence of a caseous pneumonia as a result of necrosis of the foci or catarrhal syphilitic pneumonia. The establishment of such an entity is on a rather doubtful footing.

The pneumonic types were not observed by Carrera. However, cases are certainly frequently met with clinically and respond phenomenally to antiluetic treatment.

GUMMATA

Macroscopically these are the most characteristic lesions of syphilis of the lung, consisting ordinarily of nodular formations well delimited by a ring of sclerosed tissue, the center being necrosed. Thirty-two cases, or 59 per cent, presented gummata. In 6 of these cases the lesions were single, in 26 multiple. About half were stated to be caseous. The location follows the general localization of syphilitic involvement of the lung. Gummata may occur subpleurally. In many of the cases the lesions were extensions from, or in association with, gummata of neighboring parts.

Differentiation at the autopsy table of gummata of the lung from similar tuberculous lesions is difficult. In favor of gumma of the lung are: (1) Location. Tuberculous nodules most commonly occur in plain lung parenchyma. (2) Absence of calcification. Calcification is unknown in gummata of the lung. On the other hand, fatty degeneration is said to be more common in gumma. (3) Encapsulation. This is said to be a constant finding in gummata of the lung; it is more rare in tuberculosis.

SYPHILITIC PULMONARY SCLEROSIS OR SYPHILITIC FIBROSIS

This condition results from the cicatricial termination or healing of all syphilitic pneumopathies. It was present in 28, or 50 per cent of all cases. In addition, cicatrices, as such, were mentioned in about 10 per cent of the cases. Commonest in adults of middle age, the picture consists of white hard bands or nodules which creak under the knife, in short, having all the aspects of ordinary sclerosis. The condition is described as: (1) A fine network throughout the lung parenchyma; (2) a thickening of the connective tissue following the bronchi, vessels and the interalveolar septa; (3) existing chiefly in the interalveolar and interlobular septa and in the adventitia of the vessels; (4) radiations of fibrous tissue from the hilus, following the bronchi; and (5) induration of the surface of the pleura by bands of fibrous tissue running on the surface and deeper, causing lobulation and furrowing analagous to syphilitic liver.

From a comparative study of 152 cases of lungs of syphilitics with 60 cases of tuberculous lungs, Carrera is convinced that it is never impossible to distinguish the fibrosis of tuberculosis from that of syphilis.

BRONCHIECTASIS

Dilatation of the bronchi, or bronchiectasis, occurred in 24 of the cases, or 47 per cent. The bronchiectases simulate cavities. Histologically they are lined by characteristic epithelium. There is also present new formation of cubical epithelium. Another important point is the augmentation of the circulation in the walls. Bronchiectasis was not noted by Carrera. However, two of his cases showed syphilitic peribronchitis, the essential changes consisting in plasma-cell infiltration, new-formed vessels, vascular connective tissue around the infiltration with anthracosis. The bronchial epithetypical syphilitic infiltrations of intima and adventitia. There was new-formed muscle in connection with the bronchi. The elastic tissue of the bronchus was either destroyed or lium was well preserved. There was sclerosis. Cuboidal cells were noted. The vessels showed displaced by the infiltrations.

SUPPURATION

In many cases pus can be squeezed from the air spaces and bronchi, showing a chronic bronchitis. This condition was described in 7, or 13 per cent of the cases with autopsy. Microscopically, there is an intense infiltration of small cells which should not be confounded with miliary gummata, the latter being very dry in comparison.

ULCEROUS LESIONS (SYPHILITIC PHTHISIS)

Ulceration of gummata of the lungs has frequently been described. Cavity occurred in 22 per cent of the cases with autopsy. Clinically it would seem to be exceedingly common. The gumma may develop near the wall of a bronchus and ulcerate and empty into it, forming a cavity. In two of our cases there are clinical observations which would seem to represent such an occurrence. The cases are not well described pathologically, and those which have been reported might be confused with a cavity formed by dilatation of a bronchus, which Beriel believes is the commonest syphilitic process in the lung. In latent cases of syphilitic phthisis the commonest cause for the physical signs of cavity is probably dilatation of a bronchus.

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GANGRENOUS FORMS

These have also been poorly established pathologically. Many cases are reported clinically. They probably represent secondary infection in an ulcerated gumma, or result from endarteritis.

SYMPTOMATOLOGY

A review of symptoms and physical findings will emphasize many important points, first among which is the striking analogy of clinical lung syphilis to clinical pulmonary tuberculosis. Cough is the most constant symptom, being mentioned in 88 per cent of the cases. In many cases this began as a dry cough, in others it was productive from the onset. It was constant in 10 per cent of the cases. In the majority it was intermittent.

Expectoration was recorded in 71 per cent of the cases. In 40 per cent of these the sputum was profuse. In 39 per cent of the cases it was described as mucopurulent; in 27 per cent as purulent; in 15 per cent as nummular; and in 18 per cent as offensive. In 9 of the cases, or 7.5 per cent of the entire series, there were periods during which the patient coughed up large pieces of pulmonary tissue, indicating the disintegration and discharging of a gummatous process in the lung. The expectorated masses varied in size up to that of a large bean, and microscopically were altered lung parenchyma. In a case reported by Buchanan, spirochetes were demonstrated in the sputum. Such finding, however, is subject to doubt. The organisms may well have come from the mouth.

In one case there was expectoration of bile. Autopsy revealed a broncho-biliary fistula, due to a syphilitic process. In a similar case reported by MacDonald, the patient coughed up gall-stones.

Dyspnea was present in 33 per cent of the cases, to which various causes may be ascribed. In many cases it was due to laryngeal involvement or to tracheal stenosis. At other times it was due to toxemia. In the majority of cases it was due to direct involvement of the lung.

Hoarseness was reported in 9 cases. In several this condition progressed to complete aphonia.

Forty-five per cent had fever, the pulse and respiration being, as a rule, correspondingly high. Thirty-one per cent had night sweats. There was pain in the chest in 27 per cent. Hemoptysis occurred in 37 per cent. Forty-four of the cases complained of loss of weight. In 3 cases the general condition was stated to be good. In 8 other cases the symptoms presented were in no way referable to lesions in the lungs, the most common clinical picture being that of a cardiorenal syndrome.

PHYSICAL SIGNS

The location of the lesions in the lungs was determined by physical signs in 83 cases, as follows:

Right upper lobe	50%
Left upper lobe	54%
Right middle lobe	22%
Right lower lobe	24%
Left lower lobe	34%
Both lungs	40%

It is obvious, therefore, that in the clinical cases involvement of the upper lobes was about twice as common as lesions in the bases, or in the right middle lobe. Nearly half the cases presented lesions in both lungs.

Rales were the most constant finding. In 27½ per cent of the cases there were signs of cavity. Two per cent of the cases presented pneumothorax; 1 per cent pyopneumothorax. Empyema resulted in 1 per cent of the cases. Pleural effusion occurred in 7 per cent. There was pleural friction in 3 per cent of the cases. In 22 of the 120 cases the Wassermann reaction was performed on the blood of the patients. In all it was strongly positive.

X-RAY FINDINGS

The X-ray was employed in 15 cases. In some the involution of the lesions was controlled by plates.

It may be said that the findings from a roentgenologic standpoint have been many and varied with very little agreement among observers regarding a standard of results. We may perhaps best sum up the subject for the present in the words of Howard as set down in his recent paper on "Pulmonary Syphilis." He says: "These invariably show some changes even in the cases without other physical findings. In spite of the claims of Watkins, Golden and others, as to the pathognomonic X-ray picture, I am not yet convinced that the X-ray alone will suffice for the diagnosis; true, the picture is usually distinguishable from that found in pulmonary tuberculosis, owing to the unilateral tendency of the process, its greater liability to involvement of the roots of the lung, rather than the apices, and the rarity of signs of calcification. According to Callender, the shadows are clean cut and sharp and lack the mossy outline of tuberculosis, while others, as Watkins, emphasize the irregular border of the syphilitic shadow and its relation to the hilum of the lung rather than to the bronchial tree. Watkins' claim to finding 170 cases of pure lung syphilis among 6,500 chest plates (an incidence of 2.6 per cent) alone invalidates, in my opinion, his claim of a pathognomonic X-ray picture! We must agree, therefore, with Karshner that there is as yet no characteristic X-ray picture of syphilis of the lung, nor can one be expected from such a varied pathologic picture as syphilis offers."

AUTOPSY FINDINGS

It is of interest to note the pathology found in the lungs on autopsy.

XUM

In one case, which was a typical clinical case of lobar pneumonia, the lung was reported as densely filled with spirocheta pallida, no other organisms being present.

Whereas clinical syphilis of the lung is twice as common in the upper lobes as in the bases, the findings at autopsy would not at first glance seem to bear out this ratio. There are, however, various explanations for the apparent discrepancy between clinical and autopsy findings. In the first place, owing to a time-honored belief that syphilis of the lung always occurred in the bases, in many of the cases diagnosed at autopsy, the limitation of the pathology to the bases has been the sole factor which has led to careful study and subsequent diagnosis of syphilis rather than tuberculosis; whereas, in the clinical cases, the therapeutic test has been the most potent diagnostic point. For many years in the early period of the pathological study of pulmonary syphilis, involvement of the base was the only characteristic by which syphilis of the lung was distinguished from pulmonary tuberculosis. Many of the cases with autopsy considered in this paper were observed and reported during this period. Due to the generally recognized difficulty in diagnosing the condition from tuberculous infection, cases of syphilitic involvement of the upper lobes of the lung have for a long time been overlooked pathologically. Furthermore, 8 of the 44 cases, in which the location of the lesions was stated, were extensions of gummatous processes from the liver, diaphragm, bodies of the vertebrae, or stomach and intestines, and naturally the bases were the sites of attack. In such cases the widespread syphilitic pathology was the most conclusive factor in clinching the diagnosis of gumma. A large majority of the cases coming to autopsy were late chronic cases of syphilitic pneumopathies, many of which showed no symptoms referable to the lungs.

We believe that syphilis of the lung begins most often in the upper lobes, the involvement proceeding downward. It is a common finding at autopsy to find active syphilis in the bases and older sclerosed areas in the right middle, or upper lobes. As a clinical illustration of such a process, we recall a patient in our own experience who first presented herself with involvement of the apices and whose case was diagnosed and treated as pulmonary tuberculosis. Four years later, after the appearance of an extensive cutaneous syphilid, the physical signs pointed to involvement of the right base, the commonest location of active syphilis of the lung at autopsy, and indeed, the site generally said to be the most frequently invaded by the spirochete.

From our study of the cases, therefore, we conclude that early clinical cases of syphilitic infection of the lung most often show involvement of the bases as frequently as in the upper lobes. The location of the lesions, therefore, is not so important a diagnostic factor in eliminating tuberculosis as it has long been believed to be. Pathology in the apices by no means precludes consideration of syphilis. Syphilitic lesions of the upper lobe of the lung, however, differ from tuberculous infection in that the signs are not so frequently elicited at the extreme apices, but rather in the infra-clavicular region. In this respect the findings at autopsy substantiate the physical signs and X-ray picture. In a large majority of the cases showing syphilitic lesions in the upper lobes, such lesions were located below the middle, or in the base of the upper lobes. It is also common to find similar pathology in the contiguous portion of the adjacent lobe. Generally speaking, therefore, the physical signs of syphilitic involvement of the lung, while not uncommon in the apices, are, however, most frequently elicited over that region of the chest lying between the clavicles and the bases. From the data at hand, there is a much greater tendency for involvement on the right side. In other words, pathology in the right lower quadrant of the chest is strongly suggestive of syphilis of the lung.

DIAGNOSIS

Hitherto the diagnosis of pulmonary syphilis has, like that of encephalitis lethargica, been made mainly by a process of exclusion. There are certain points, however, which would seem to be of rather marked significance in arriving at a positive diagnosis. Of course, certain other conditions, chronic lung abscess, bronchiectasis and empyema must first be excluded. Marked physical signs in the lungs without proportionately grave symptoms to account for them, such as fever, loss of weight, night sweats, dyspnea or pain in the chest should at least put the clinician on his guard respecting lues. Again, a constantly negative sputum after repeated examinations for the Koch bacillus should awaken a reasonable suspicion, after ruling out chronic abscess, which is so often taken for tuberculosis. The presence of other stigmata of syphilis, especially with the added evidence of a positive Wassermann reaction, should awaken one to the necessity of questioning seriously the diagnosis of tuberculosis in favor of syphilis. Lastly, and we believe most imporatnt, is the therapeutic test.

TREATMENT

The treatment of syphilis of the lung must of course follow the lines along which syphilitic infection in general is treated, the result depending largely upon the period in the course of the disease in which treatment is instituted and the thoroughness with which it is pursued. In early cases the arsenicals, arsphenamine, neoarsphenamine and sulpharsphenamine are

valuable, while in the gummatous stage, or in long standing infections, particularly in those cases with actual or suspected heart lesions, it is best to rely upon mercury and iodides. Symptomatically many of these cases respond well; gummata particularly melting away under potassium iodide. Final results, however, can only be satisfactory when we learn to recognize the condition in its incipiency. Fewer cases of pulmonary involvement will occur when primary syphilis receives its proper attention.

SUMMARY

1. One hundred and twenty cases of syphilis of the lung have been carefully selected from the literature and analyzed.

2. The history of syphilis of the lung is as old as the history of syphilis.

3. Syphilis of the lung occurs more frequently than it is recognized.

4. The disease has been most commonly recognized in the early part of the fourth decade of life.

5. It is more common in males than in females, and more fatal in the latter.

6. As recognized in the past, lung accidents are among the latest manifestations of the disease. Ten per cent of the cases occurred as late involvement in hereditary syphilitics.

7. Fifty-five of the 120 patients came to autopsy. Out of 66 patients treated, 56 were symptomatically cured, 5 improved, 1 showed no improvement and 4 died.

8. Eighty per cent of the cases showed concurrent or previously active syphilitic lesions, which were clinically recognizable. In addition to this, all of the hereditary cases were stigmatized.

9. Syphilis of the lung is relatively common in association with bone, cutaneous and visceral syphilids, rare in association with central nervous involvement.

10. Twenty per cent of the cases with autopsy showed amyloid changes in other organs. Twenty per cent had syphilitic aortas and 40 per cent syphilitic livers.

11. Trauma apparently plays a very small part in the localization of the spirochete in the lung.

12. None of the cases had previously received proper anti-syphilitic treatment; in most, treatment had been desultory. In 37 per cent of the acquired cases primary infection was denied.

13. Of the 55 cases with autopsy only 4 were correctly diagnosed ante mortem.

14. Fifty-five per cent of the cases had been diagnosed and treated as pulmonary tuberculosis. In 24 per cent the diagnosis was made upon the appearance of associated syphilitic lesions. In 35 per cent of the cases the diagnosis was determined after the therapeutic test.

15. Syphilis of the lung in the early secondary or florid period of infection is not well established. However, it is reasonable to believe that lesions corresponding to the cutaneous exanthemata may well occur in the lung at the time of the generalized spirochetosis.

16. Syphilis of the lung occurring together with pulmonary tuberculosis is the commonest type of syphilitic pneumopathy.

17. The pathology of syphilis of the lung is the new pathology of syphilis established by Warthin, and the diagnosis is essentially microscopic.

18. Syphilis of the lung is commonly classified as, (a) interstitial pneumonia, which occurred in 50 per cent of the cases with autopsy. (b) gummata, which occurred in 59 per cent of the cases with autopsy; (c) syphilitic pulmonary sclerosis or fibrosis, which occurred in more than 50 per cent of the cases with autopsy; (d) bronchiectasis, which occurred in 47 per cent of the cases with autopsy, and (e) suppurative processes, ulceration and gangrene. Suppuration was noted in 13 per cent of the cases with autopsy, cavity in 22 per cent of the cases with auotpsy, and gangrene in 1 case with autopsy.

19. The symptoms of pulmonary syphilis are the symptoms of pulmonary tuberculosis.

20. The physical signs of pulmonary syphilis resemble the physical signs in pulmonary tuberculosis.

21. In the clinical cases without autopsy the upper lobes were involved about twice as commonly as the bases. Nearly half of the cases showed involvement of both lungs.

22. The roentgen ray has been a valuable factor in the past in differentiating syphilis of the lung from other conditions. It should become increasingly valuable in the future.

23. At autopsy both lungs were involved in 36 per cent of the cases. The lesions were much more common on the right side, 68 per cent showing involvement of the right lower lobe, 55 per cent of the right upper lobe, and 43 per cent of the right middle lobe, while only 36 per cent showed involvement of the left upper lobe and 36 per cent of the left lower lobe.

24. Syphilis of the lung most frequently involves the upper lobes first, the process proceeding downwards. It is more common on the right side.

25. Pathology in the apices by no means precludes the possibility of syphilis. Involvement of the middle or bases of the lungs speaks for syphilis.

26. Certain points have been stressed upon in the diagnosis of pulmonary lues which should make the recognition of the condition somewhat easier than it has been heretofore.

27. Treatment of syphilis of the lung is the treatment of syphilis as found in any part of the human body.

XUM

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

THE DIAGNOSTIC VALUE OF BLOOD CULTURES

During the fiscal year ending July 1st, 1924, the laboratories of the Michigan Department of Health cultured 1,280 specimens of feces for typhoid bacilli, made 610 tests for the Widal reaction, and cultured 101 specimens of blood for typhoid bacilli. These figures are interesting for they show to what extent and in what way the physicians make use of the state laboratories in typhoid diagnosis. Based upon the established value of laboratory procedures as an aid to diagnosis in typhoid fever, the figures should be 1,280 blood cultures, 610 specimens of feces, and 101 Widal tests; for in laboratories where specimens are collected and cultured under optimum conditions, bloods are positive for typhoid bacilli in practically 100 per cent of the cases when taken in the first week of the disease, feces about 10 per cent, and the Widal tests negative.

Of the 101 specimens of blood submitted for diagnosis in suspected cases of typhoid fever, 12 were positive for typhoid bacilli, five for streptococcus viridans, one for hemolytic streptococci, one for diphtheroids, 20 for staphylococci, 18 were contaminated, and 44 were sterile. So low a percentage of positive findings is scarcely a recommendation of blood cultures as an aid in diagnosis. There are, however, several factors to be considered in relation to negative bacteriological findings. These are, viability of the organisms in bloods one to three days in transit, cultural methods employed in the laboratory, the day of disease on which blood is collected, and finally, clinical diagnosis. As the clinical information in the laboratory is not complete there is no way of arriving at the actual value of negative findings, so that the above findings may in any number of instances have been on cases which were not clinically typhoid fever.

We feel that more of our negative findings are due to the time the specimen is collected than to bacteriological procedure. At one time it was the consensus of opinion among bacteriologists that blood must be cultured immediately on collection from the patient to insure the recovery of any organisms, if present; the more delicate the organism, the more important this point in technic. The reason for the great haste was to prevent the inhibitory action of the antibody content of the blood upon the organism. Recent investigations[1], however, have shown that as good results may be obtained from clotted blood as from diluted blood, provided the procedure is modified to meet the physical factors. Most of the specimens received in the state laboratories are clotted blood. We have modified our procedure to meet this condition, and feel that the loss of the organisms in transit is minimum.

There is no doubt that the time of collection of blood materially affects our results, for it is shown by the laboratory records that bloods are collected on any day of disease from the first to the twenty-first. It is the writer's experience that the blood culture after the first week of disease yields negative results in direct relation to the time of illness; about 50 per cent during the second week, and practically 100 per cent in the third week, except in relapses when the bacilli again enter the blood stream.

With these facts in view we can appraise the value of the negative findings on blood cultures. If the blood is collected early in the disease, and optimum cultural conditions furnished by the laboratory, a negative result would indicate further search for the cause of the infection. It is an established fact that all enteric fevers that simulate typhoid fever are not typhoid fever, and medical experience has shown that endocarditis[2] also simulates typhoid fever. The following table shows bacteriological findings in relation to clinical diagnosis on a short series of cases in which the physicians furnished the laboratory with information in regard to the final disposition of their patients:

The Diagnostic Value of Blood Cultures

DIAGNOSIS	BACTERIOLOGY	RESULT
Pneumonia	Hem. Strep.	Recovery
Typhoid	Strep. Viridans	Recovery (Widal neg. at end of 2 weeks.)
Septicemia	Strep. Viridans	Death
Pneumonia	Strep. Viridans	Recovery
Puerperal Septicemia	Hem. Strep.	Death
Typhoid	Strep. Viridans	Recovery
Puerperal Septicemia	Strep. Viridans	Recovery
Empyemia	Strep. Viridans	Recovery
Multiple Abscesses	Strep. Viridans	
Indefinite Fever	Strep. Viridans	Death after long illness.
Encephalitis	Strep. Viridans	Incomplete recovery
Pneumonia	Strep. Viridans	Incomplete recovery
Septicemia	Hem. Strep.	Incomplete recovery (Complicated by endocarditis, frontal sinus).
Puerperal Septicemia	Hem. Strep.	Death
Facial Erysipelas	Hem. Strep.	Death
Septic Finger	Hem. Strep.	Recovery
Puerperal Septicemia	Hem. Strep.	Death
Puerperal Septicemia	Hem. Strep.	Death
Puerperal Septicemia	Hem. Strep.	Death
Typhoid	Strep. Viridans	Recovery

The above table obviously needs no discus-

sion, but even a bacteriologist is impressed by the number of recoveries. One might wonder as to how much physical fitness is meant to be read in the word "recovery" as noted on the histories of these cases.

To continue the discussion of the bacteriology of blood cultures, which brings us to the question of contamination, our first consideration is staphylococcus. Staphylococcus, although considered by the bacteriologist as a widely distributed saprophyte, and of little pathological significance, is not always so harmless as we would think. The medical man, no doubt, feels differently as evidenced by medical literature in which staphylococcus has been proved to be the invading organism. It has been the writer's practice, when working in hospital laboratories, to immediately check the findings of staphylococci in blood cultures. In public health laboratories, however, where distances between patient and laboratory are apt to be great the interpretation of a finding of staphylococci must of necessity be left to the doctor. His difficulty in checking is apparent, for by the time the laboratory report has been returned to him via the mail bag, the organism may have disappeared from the blood stream so that a subsequent negative finding proves nothing.

With these facts in mind it is the practise of the state laboratories to report staphylococcus as "Found" and report only those cultures showing hay bacilli or other well recognized contaminating organisms as "Contaminated." A report of a contaminated blood culture does not necessarily throw any discredit on the doctor's technic as a few irate gentlemen have thought in the past. A contamination may mean that the container sent out by the department is contaminated, or that the bacteriologist has contaminated the blood during the process of culturing, or that the doctor contaminated the blood during the collection. The containers of the department are carefully checked for sterility and should be practically free from contamination, but at best neither the Wassermann vial nor the jar with the upressit cap are as satisfactory as the Keidel tube.

There has been considerable experimental work done not only in the laboratories of the Michigan Department of Health, but in other public health laboratories, to determine the best method for transporting blood for culture. Bile[3] medium has been found very satisfactory for typhoid bacilli, but is not satisfactory for other organisms. Since the blood culture has considerably more value in a doubtful case of typhoid fever than in a well defined case the department has not thought it advisable to adopt two containers, one for typhoid fever and one for diagnosis of other fevers. The Keidel tube, to date, has been considered too expensive to be practical for free distribution. It remains, however, the best and the most convenient means available for the collection of blood and for transportation.—C. C. Y.

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A BREAST FEEDING SURVEY IN A RURAL COUNTY

Michigan's infant mortality rate is higher in some of the rural districts than it is in the more populous communities. The state's average infant mortality rate for the years 1921, 1922 and 1923 was 78.1, while in certain rural counties the average number of infant deaths for each thousand of living births was as high as 122.8, and 145.0. While many contributory factors are undoubtedly responsible, the results of a breast feeding survey conducted in Alger County at least partially explain the great number of infant deaths in sparcely populated communities.

Alger County was selected for the survey as a typical rural county. For the years 1921, 1922 and 1923, the average number of infant deaths per thousand living births was 92.0, a figure considerably in excess of the infant mortality rate for the state. The survey was conducted as a preliminary measure to an educational campaign for breast feeding. A nurse visited the homes of all babies whose births were registered between January 1, 1923, and the early spring of 1924. The baby's breast feeding history was obtained, if possible, from the mother. The following data was secured in each case: name, date of birth, address, nationality of mother, occupation of father, how long breast fed, why weaned, what is being fed, home conditions, and condition of the baby.

The homes of 149 babies were visited and histories obtained. Of these homes, 43 or 29 per cent were in good sanitary condition, 65 or 44 per cent in fair condition, and 41 or 27 per cent of the homes were poorly cared for. The survey was inclusive, and was not confined to families of any single economic or social group. These homes represent a fair cross section of the county as a whole.

The months of life during which the 149 babies were breast fed are grouped in the following table, together with the number of babies in each group:

No. Months Breast Fed	Number of Babies	Per Ct. of Babies
Less than 1 month	42	28.19
1 month to 5 months	36	24.16
6 months to 1 year	51	34.23
Over 1 year	20	13.42
Total	149	100.00

More than a quarter of the 149 babies were breast fed less than one month (28.19 per cent), and 52 per cent of them were nursed less than six months. Mother's milk is so generally

recognized as the best food for young infants that these findings require no comment. They show very plainly that rural Michigan mothers are for some reason not performing one of the most important of maternal functions.

Further study reveals the fact that American women do not nurse their babies as long as mothers that come from foreign countries. The survey included 102 babies whose parents were Americans and 47 whose parents were foreign born. There were 33 babies of American parentage who were not breast fed at all, or who were breast fed less than one month, as compared with 9 babies whose mothers were of foreign nativity. Over half of the foreign born mothers nursed their babies more than six months. This was true of a smaller percentage of American mothers (45.10 per cent). If the reasons given for weaning the baby are considered, it is found that 28 of the 35 mothers who are known to have weaned their babies under six months because of an insufficient quantity of milk, were native born, while there were only seven foreign born women who reported this difficulty. Eighty per cent of a representative group of native Michigan mothers did not have enough milk to nurse their babies, and only 20 per cent of foreign mothers. These percentages cannot be attributed to economic causes. Foreign born women would naturally have more strenuous household and other tasks to perform besides caring for the baby.

Illness, the quality of milk produced, or other good medical reasons often make it necessary for the physician to advise weaning the young infant. However, it was found that breast feeding was usually discontinued without medical consultation. Of the 42 babies who were breast fed less than the first month of life, only one was weaned upon the advice of the family physician. Only five of the eighty babies for whom this information is available were weaned because the doctor thought it best.

The mothers gave a number of reasons for weaning the baby. They may be tabulated as follows. The classification "all others' is a miscellaneous group which includes such reasons as a succeeding pregnancy, the death of the mother, or lack of time to nurse the baby:

Reason for Weaning	No. of Babies	PerCt. of Babies
Insufficient milk	35	47.30
Milk did not agree	21	28.38
Illness of mother	12	16.22
All others	6	8.10
Total	74	100.00

An insufficient quantity of milk, and a poor quality of milk were the reasons most frequently given for cessation of breast feedings.

Modified cows milk was the favorite artificial food. This was given to 57 babies. Condensed milk, which was used in 30 cases, came next, and these were supplemented by a variety of proprietary foods, and cereal preparations. An interesting detail is that only four babies under six months of age were given orange juice, in spite of its supposedly general use as an essential and valuable means of furnishing vitamine A to artificially fed infants.

After all, is breast feeding such a distinct advantage, and does it bear any direct relationship to the nutrition and health of the baby? The Alger County results show that the correct answer to this question is unmistakably in the affirmative. Of the 65 babies who were breast fed more than six months, 54, or 83.08 per cent, were found to be in good condition, and only 11, or 16.92 per cent in poor condition. It was found that 46, or 80.70 per cent of the 57 babies weaned during the first six months of life were in poor condition, whereas 38, or only 41.30 per cent of the 84 babies in good condition were breast fed less than six months. The survey demonstrated that the nursing baby has a better chance of remaining in good condition.

The Alger County survey has been followed by an educational campaign, the necessity for which it made so very clear. This county is typical of rural Michigan, and there is an equally urgent need for material education throughout the state. American mothers have probably weaned their babies as a matter of thoughtless convenience, and have substituted a variety of unsatisfactory methods of infant feeding without seeking a physician's advice. The insufficient quantities of mothers' milk could have been prevented by sensible prenatal care in many cases. The breast feeding survey reveals one source of high infant mortality. It proves conclusively that the mothers of Michigan must be taught the value of prenatal care and of medical supervision during the first year of the baby's life.—B. M. H.

LETHARGIC ENCEPHALITIS

The fact that lethargic encephalitis has been present in many parts of the world the past few years and that during 1924 Great Britain experienced quite a severe epidemic, makes it of interest to review the situation in Michigan.

At no time has this disease assumed epidemic proportions in this state. The State Commissioner of Health, with the consent of the Advisory Council of Health, made the disease reportable on March 2, 1921, but few cases have ever been reported. In 1923 there were 65 cases reported and in 1924, 45 cases, a total of 110 cases for the two years. During this same period, however, lethargic encephalitis has been certified as the cause of death on 105 certificates—54 in 1923 and 51 in 1924.

Of these deaths, 60 were males and 45 females. The age distribution was quite general, the greatest number being found between the ages of 25 and 50, in which group there were

52 deaths; under 25 there were 34 and over 50 there were 19. Twelve deaths were children under 5 years of age.

The seasonal distribution of these deaths was as follows:

January	8	August	4
February	18	September	3
March	16	October	5
April	12	November	4
May	10	December	4
June	11		
July	10	Total	105

This seems to indicate that the spring months are the months of highest incidence, but the number of cases is too small to establish any rule.

We must always consider the possibility of error in diagnosis in this disease, as there is no laboratory aid in the diagnosis and but few of these cases were posted, and the further fact that but few physicians have had the opportunity to see cases or to study the disease at first hand.

We may conclude, therefore, that up to the present time lethargic encephalitis is not a serious problem in Michigan.—W. J. V. D.

DIPHTHERIA

Michigan's first county diphtheria protection campaign is well under way. Through the cooperative efforts of physicians, health officers, school officials, and interested laymen, every child in Ionia County is being offered toxin-antitoxin immunization without charge. The final results of the first series of protection clinics are as follows:

Place	No. Children Immunized	Estimated Population Under 15 Years of Age	Estimated Per Cent Population Under 15 Immunized
Portland	436	532	81.95
Ionia	1223	1942	62.98
Lake Odessa	269	349	77.08
Belding	580	1095	52.97

Only children who received the complete series of three weekly doses of toxin-antitoxin are included in the above tabulation. The remainder of the county is being immunized as rapidly as possible.

The results from the first group of clinics show that community diphtheria protection campaigns are thoroughly practical undertakings. In each one of the Ionia County towns where toxin-antitoxin was given, the community immunization plan was enthusiastically received. Parents gladly availed themselves of the opportunity for protecting their children against diphtheria. Similar campaigns would be welcomed just as heartily, if sponsored and carried out by the physicians who practice in Michigan cities and villages.

It seems quite likely that we shall soon be able to control scarlet fever by means of a skin test for susceptibility and a preparation for active immunization. No matter how encouraging the recently published studies on this disease may be, we must remember that for the time being, scarlet fever can be held in check only by the strict observance of quarantine. The present state regulation requires a twenty-eight day quarantine. There have been two Michigan scarlet fever epidemics recently, each of them with over a hundred cases, and directly traceable to the failure of the local health officials and physicians to enforce the twenty-eight day quarantine rule. Speculation about the matter, and the recital of a few individual cases which recovered in shorter time are interesting conversationally, but experience always shows that the twenty-eight day period must be conscientiously adhered to. As yet there is no other certain method for preventing the spread of scarlet fever.

PREVALENCE OF DISEASES

February Report

Cases Reported

	Jan. 1925	Feb. 1925	Feb. 1924	Average
Pneumonia	522	596	709	1,353
Tuberculosis	448	535	257	307
Typhoid Fever	54	31	26	41
Diphtheria	421	302	632	670
Whooping Cough	502	440	224	479
Scarlet Fever	1,310	1,368	1,510	1,214
Measles	707	692	2,343	1,465
Smallpox	151	59	543	397
Meningitis	13	12	10	19
Poliomyelitis	4	8	3	3
Syphilis	1,215	1,067	1,157	823
Gonorrhea	827	739	836	780
Chancroid	17	8	20	18

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health, February, 1925.

	+	—	+—	Total
Throat Swabs for Diphtheria	.....	.....	.....	3382
Diagnosis	79	703	.....	.....
Release	261	688	.....	.....
Carrier	29	1579	.....	.....
Virulence Tests	26	17	.....	.....
Throat Swabs for Hemolytic Streptococci	.....	.....	.....	1800
Diagnosis	243	298	.....	.....
Carrier	163	1096	.....	.....
Throat Swabs for Vincent's	13	764	.....	777
Syphilis	.....	.....	.....	9837
Wassermann	906	4015	46	.....
Kahn	1025	3789	56	.....
Darkfield	.....	.....	.....	.....
Examination for Gonococci	141	1513	.....	1654
B. Tuberculosis	.....	.....	.....	448
Sputum	48	381	.....	.....
Animal Inoculations	3	14	2	.....
Typhoid	.....	.....	.....	108
Feces	12	38	.....	.....
Blood Cultures	2	15	.....	.....
Urine	.....	3	.....	.....
Widal	8	30	.....	.....
Dysentery	.....	.....	.....	.....
Supplementary Examinations	.....	.....	.....	277
Unclassified Examinations	.....	.....	.....	6330
Total for the Month	.....	.....	.....	25737
Cumulative Total (Fiscal year)	.....	.....	.....	164845
Increase over this Month last year	.....	.....	.....	6638
Outfits mailed out	.....	.....	.....	11380
Media Manufactured, c.c.	.....	.....	.....	298925
Diphtheria Antitoxin distributed, units	.....	.....	.....	12704000
Toxin Antitoxin distributed, c.c.	.....	.....	.....	42580
Typhoid Vaccine distributed, c.c.	.....	.....	.....	1205
Silver Nitrate Ampules distributed	.....	.....	.....	1700
Examinations made by Houghton Laboratory	.....	.....	.....	1547

XUM

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Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

ARROWSMITH

While recuperating from the "barks and aches" of a recent attack of grippe, we noted the following review that was published in the Journal of the American Medical Association. We got the book and were so well entertained by it that we are passing the news along.

Arrowsmith. By Sinclair Lewis. Cloth. Price, $2, net. Pp., 448. New York: Harcourt, Brace & Co., 1925.

To the distinguished line of novels of medical interest that have been commented on from time to time in this department we may now add the latest work to come from the pen of Sinclair Lewis, known to medical readers particularly for the character of Dr. Will Kennicott in "Main Street." The son and the brother of physicians, reared in a medical atmosphere, Sinclair Lewis approached the writing of Martin Arrowsmith with unusual capabilities. He realized, however, the limitations under which any lay writer must labor in approaching a medical subject, and he took with him, as assistant and counselor, Paul De Kruif, Ph.D., formerly assistant in the department of bacteriology in the University of Michigan, and later member of the staff at the Rockefeller Institute. It is not surprising, therefore, to find in the novel much of the atmosphere of the life of De Kruif.

The first physician to enter the story is old Doc Vickerson, a good physician gone to seed trying to overcome the deadlines of a backward community. To him comes Arrowsmith as apprentice. Then, for perhaps the first third of the novel, we accompany Martin Arrowsmith through the university and the medical school. Here is accurate picturization of medical education mingled with biting satire at human frailty among the educators as well as among the young men who are trying to conform to the rituals and rules and regulations. In all our great schools, the intensely individual student has a difficult time. The boy who is somewhat different about thinking for himself, about working out ideas of his own, about proceeding a little faster or on a different road from the rest of the crowd, is likely to find himself buffeted about by the other kernels that are passing through the mill in an orderly manner. Sometimes the youth finds a sympathetic preceptor among the austere members of the faculty. When he does, his road is made easier and he is likely to have at the end an entirely different point of view from that of the anti-social being who has had no help in making the proper accommodations.

There comes early on the scene also in "Arrowsmith" Professor Gottlieb, prototype of the true scientist, living only for his research, never compromising with dishonesty. So far as we know, the character of Gottlieb is unique in fiction. He towers as an inspiration above the lesser people in this novel. For him there is none of the Lewis satire that devastates the minor medical personages. Such people as Dr. Angus Duer, who even as a student had his mind constantly fixed on money, as Ira Hinkley, medical missionary who was constantly adjusting science to religion, as Dr. Cliff Clawson, whose low ideals made him impossible as a physician, lend themselves readily to the piercing darts of humor. Even more pregnable is the famous Dr. Pickerbaugh, evangelistic health officer of the Eddie Guest school of hygienic poetry. Perhaps never before has Lewis reached the heights of satirical delineation that are reached in chapters of "Arrowsmith" dealing with the subject of "weeks", from old home week and go to church week to swat the fly week and better babies week, culminating at last in the great health show.

The novel takes Martin Arrowsmith through the career of country physician, health officer, member of a group clinic, and research worker in the great McGurk Institute to the combat of an epidemic of plague in the West Indies and at last to the life of a recluse investigator in the North woods. Through this runs romance, from the feeble flame of love that flickers at first for a college widow, through the marriage with Leora, most human of all of Sinclair Lewis' women, to the unsuccessful union with Joyce Lanyon, wealthy offspring of high society. And throughout this majestic novel, character after character appears and reappears, carried out perfectly to the existence for which his type, as first portrayed so perfectly, logically fits him.

"Arrowsmith" is the story of an individual, an analysis of the spirit that animates the investigator and drives him perhaps more strongly than any other motive in life, unless it be passion or hunger. It is told as only our leading realistic novelist can tell about things for which he feels real interest. It is told with that fire of the crusader which makes sentences burn and imbues words with living flame. It can do scientific medicine nothing but good, for it will aid to make many persons comprehend who now do not understand, and to make many others seek further information, that they may comprehend the aims and progress of medicine more fully.

MEDICAL EDUCATION

At the present time the medical profession and the medical schools are greatly disturbed by the problem—how to educate a doctor. As most medical schools are a part of state univer-

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sities and the teaching of medicine is being directed by an association of the faculties of these medical schools, one might think that such a proposition could easily be settled. But who directs the thought of the association?

One may discover such a power in a book entitled, "Medical Education, a comparative Study," written by Abraham Flexner and published by the Macmillan Company. The writer has presented a concise history of the development of medical education in all countries, giving special attention to the changes wrought in the last fifteen years, also comparing the methods employed and the results obtained.

Medical schools are classified into three types: the clinical, university and the proprietary. The proprietary schools, at one time so common in this country, have entirely disappeared. The inception of the university type of medical school in this country began when Dr. Eliot began his presidency at Harvard, but with indifferent success. The true model did not appear until 1909, when the hospital of the Rockefeller Institute for Medical Research was established and the express provision was made "that no member of the staff should engage in paid private practice." In 1913 John Hopkins Medical school was able to finance a full time group in medicine, surgery and pediatrics.

One will readily understand that the ideal university type will have all chairs, clinical as well as laboratory, filled with full time men. In the United States, the full time professor and staff are so salaried that the hospital and the medical school command their entire time for the care of patients, for the instruction of students, and for research. No limitation whatsoever is placed upon the instructor's freedom to see and treat patients inside or outside the hospital in order to gain experience or to render service; he is simply freed from the necessity of earning any part of his livelihood by private or consulting pracitce."

How shall the full time professor and his staff be paid, as they can never be satisfied with the nominal salary which is given when they are allowed to practice? Their salaries may be paid in part by the hospital and university or by the hospital entirely. The hospital may be supported entirely by the state and become a free hospital, or patients may be charged fees by the hospital management to defray expenses and pay at least a part of the salaries of the full time men.

When fees are charged, the hospital should use great tact, not to enter into competition with outside physicians. How much may accrue from such fees is problematic. One institution with four full time departments averaged $13,000 and another something more than $8,000. A university is quoted as paying a full clinical professor the following plan. The university obligates itself to pay $7,500, to which he may add consultation fees not to exceed $2,500. "It remains to be seen whether medicine can be generally converted into a university discipline, or whether proximity to a prosperous practising profession will result in professional rather than academic standards of living."

Behind the clinical teacher is the full time laboratory man who puts himself in that position to guard his secrets and finish his own experiments. Johannes Muller in 1850 taught at Berlin all the pre-clinical sciences. The clinician listened, then became interested and now is so thoroughly intoxicated that he does not think of giving a diagnosis without pushing the laboratory button for reports. The art of medicine requires a careful combination of a knowledge of the sciences. An able teacher for each. To fill the ideal requirements the clinicians must be planted in the laboratories, and later be developed in the hospitals.

"The moral is plain. The medical faculty cannot and must not compete financially with worldly occupations, but it must in the long run, offer salaries adequate to enable competent professors to live at the level prescribed by custom and common practice.

What has happened to medical schools? "With the spread of the scientific conception of medicine, practical training of the individual has come to the fore; teachers of medicine insist that if the student is to learn by doing, his doing must be closely supervised. Hence enrollment is limited on the basis of facilities and staff. Stanford now admits approximately 25 to each class. John Hopkins, which used to admit 100, has successively reduced its classes to 90, 75, 66. The new Vanderbilt and the new Chicago schools are planned for classes not to exceed 50."

Within the last ten years the number of medical schools has diminished from 160 to 80, and the author maintains that there are still too many, and that "the American medical school is already over-complicated and over-administered."

The last chapter is upon costs and when the author comes to compare these with the possible results he confesses to a bad dream.

"It is not altogether idle to dream dreams: but in its present complexity, no single science, and still less the large group of sciences comprised in the medical faculty, can be schematically organized and developed." Philanthropists may give buildings and funds may be secured for endowments, but men have learned to sell themselves to the best advantage.

How seriously is our own University Medical school involved in this method? Five years ago the faculty decided to put two departments of surgery and medicine on full time. The plan employed was according to the rules presented above with some variations. The de-

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partment of surgery has been successful, but the chair of medicine has been vacant for some time. This does not mean that medicine has not been taught. It only means that there is something wrong with the university plan in our school.

The University of Michigan Medical Department was one of the first to have its own hospital. Soon the new hospital, with every facility for teaching medicine, will be opened. The clinical and the laboratory departments will be partially united in name and, let us hope, in spirit as well. This school has been successful in making good doctors and this year will graduate about 140. The State Medical Examining Board will probably discover that these students know enough of the sciences to practice the art of medicine without discovering how much of the unnecessary they have learned.

Two things are necessary for medical training; interest and a capacity for work. Whether full time or part time, the faculty gives the direction and the inspiration. Let us hope that the medical school of the university will not entertain aristocratic ideas concerning education, but will continue to function properly in the making of good physicians.

C. G. Darling.

OCULAR DEFECTS FROM SKULL INJURIES

Dr. J. S. Somberg of New York comments very pointedly and timely to the ocular defects following skull injuries. In this day of so many head injuries resulting from our conjested streets and highways these ocular injuries merit careful treatment and observation. We present the following comment and conclusions of the doctor:

"It is very evident that practically no structure of the eye, including its musculature and the optic pathways, is entirely exempt from involvement following skull injuries. This emphasizes the importance of complete ocular examination immediately following all such injuries or as soon as it is fesible. The general surgeon or the general practitioner who has control of these cases, unless he makes special note or examination of the eyes and their functions, is very apt to overlook these conditions. The reason for this are manifold. Among them may be mentioned the general condition of the patient immediately following the accident, the bandaging of the head and possibly the eyes at the same time, the prominent neurological condition overshadowing all other condition, closure of the lids by ecchymosis or edema, and the more or less disoriented, dazed condition of these patients for several days following the injury.

Undoubtedly, the general practitioner or surgeon may be able to recognize the majority of these conditions. However, it is advisable, wherever possible, to have a complete ocular examination by a competent ophthalmologist in all such cases, so that what may be an apparently trivial condition and one which is easily overlooked should be noted and appropriate measures taken for a possible correction.

Just a word may be said here regarding the possibility of differentiating old, pre-existing or coinciding lesions from conditions which may have really resulted from the injury in question. At times such a differential diagnosis becomes exceptionally difficult, in fact impossible, unless there have been previous eye examinations. One of the most common points for controversy is the fact that very often there has always been a pre-existing condition, or possibly a congenital amblyopia which has been overlooked by the patient, or at least not recognized. Following the accident the patient's attention will be drawn to his eyes very frequently, and there will then be noticed a diminution of vision in one eye, which the patient will maintain never existed before the injury. In some of these congenital amblyopias there will be a concentric contraction of the field which will simulate a hysterical or a functional amblyopia and which can only be differentiated from it by the rest of the examination.

Malingering is another phase of the subject which makes an absolute diagnosis often difficult, and oftimes impossible. Some of these patients will be found, especially if the condition has existed for some length of time, to be well-trained, and only by repeated examinations with a careful notation of the findings at each examination so that no change can really occur, can a differential be made.

Conclusions—

1. Any structure of the eye or its musculature or the optic pathways may be involved in skull injuries.
2. Fractures of the skull are not necessary for such involvement.
3. The severity of the concussion is not always the determining factor in the amount of intracerebral or ocular damage.
4. Functional conditions are very apt to result from a very slight skull injury, without any concussion of the brain.
5. Ocular conditions resulting from skull injuries are often overlooked due to various factors.
6. Functional ocular involvement usually subsides within a definite period, but if it persists, malingering should be suspected.
7. Ophthalmological examination is indicated in all skull injuries, no matter how apparently trivial they may be.

CHIROPRACTIC BILL

Two bills have been introduced in the legislature to license "chiros." We append the following expert analysis of the house bill. We want our members to read it, percieve the points made and then present these arguments to your local representatives. Local legislative committees should become aggressive.

Memorandum relative to House Bill No. 219, a bill to regulate in the State of Michigan the practice of chiropractic, providing for the appointment of a Board of Examiners, etc.

There are three outstanding defects in this bill, quite aside from any question as to the merits of chiropractic:

1. The bill undertakes to denounce certain conduct as criminal, without defining the conduct thus denounced.
2. The bill undertakes to legislate regarding a stated subject, chiropractic, but leaves the definition and delimitation of that subject to an unofficial, unorganized body.
3. The subject matter of the bill is already amply covered by existing law.

In addition to the objectionable features of the bill pointed out above, there are certain other objections to it, based on secondary results that would follow

its enactment that are not apparent on the face of the bill itself.

* * * *

1. The prime objection to this bill is that it undertakes to make certain conduct unlawful, but does not define that conduct so as to enable those who must live under the law and those who must enforce the law to know just what is and what is not forbidden. Section 3 provides in part as follows:

"Any person who by means of advertisements in directories or in the public press or by cards or signs or in any other way shall *hold himself or herself out to the public as a chiropractor* or who shall actually *give any chiropractic adjustments* for hire without first obtaining a license to practice chiropractic in this state shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than two hundred dollars ($200) or by imprisonment in the county jail for not more than six (6) months, or both, at the discretion of the court; provided that this shall not apply to clinics called by an incorporated college or school of chiropractic."

Nowhere in the bill, however, is there any definition of "a chiropractor" or of the "chiropractic adjustment."

It is true that the first sentence of Section 3 provides that,

"The license provided for in this Act shall entitle the holder to practice chiropractic as taught in the schools and colleges of chiropractic."

This, however, is at best very indefinite, a matter that will be discussed more at length below. Only by implication, too, does it forbid the holder of a license to do things that are *not* "taught in the schools and colleges of chiropractic," and at best it is a very indefinite sort of a prohibition on persons who are not holders of chiropractic licenses to inform them what they must refrain from doing. It is an elementary principle in the drafting of a criminal statute that it shall be made so clear that any citizen will be able to understand what it commands or what it forbids, and not leave the matter to interpretation by the court after the defendant has been charged with an offense. The phraseology of this bill does not meet that requirement.

What has been said in the preceding paragraph with respect to the definition of the term, "chiropractor," applies with even greater force to the failure of the bill to define the phrase, "any chiropractic adjustments." Any disinterested person familiar with the history of chiropractic knows that it is simply the bastard offspring of the osteopathy of Still and the magnetic healing of Palmer, Sr. In consequence, there is a certain similarity between the spinal manipulations of the osteopath and the so-called chiropractic adjustments of the chiropractor. When the spinal manipulation of the osteopath passes over into the spinal adjustment of the chiropractor would be a difficult thing to tell, in the absence of clear definition of both of these terms, and the osteopaths of Michigan would practice their callings at their peril, if this bill should become a law. Moreover, since a spinal adjustment is merely a replacement—or a pretended replacement—of a dislocated vertebra, a surgeon who undertook to replace a displaced vertebra would find himself running afoul of the chiropractic law.

If the proponents of this bill deem it expedient that persons generally should be forbidden to hold themselves out as chiropractors or to give chiropractic adjustments, unless such persons had proved their fitness —whatever that may be—to do so, it would be interesting to know why they should undertake to except from this rule "clinics held by an incorporated school or college of chiropractic." In the first place, what is a clinic? While the term at one time meant a teaching process, it has now come to mean also an organization and method for treating the sick. Under the proposed law would any organization and method for treating the sick, as by group practice, if conducted by an incorporated college or school of chiropractic be lawful? If so, what is to prevent any group of persons, whether having any knowledge of chiropractic or not, from organizing under the general incorporation laws of some state or of the District of Columbia—possibly of Michigan—"an incorporated college or school of chiropractic," and then proceeding to carry on in a wholesale way the treatment of the sick by spine punching? Or even if we concede that the privileges accorded by this exemption would be utilized only by bona fide schools or colleges of chiropractic, are they to be without limitation as to the character of their subordinates whom they entrust "analyzing" and "adjusting" the spines of their patrons? The wholesale and dangerous way in which spine punching is carried on in some institutions undertaking to teach chiropractic is shown by a recent catalog of the Ross College of Chiropractic, Fort Wayne, Indiana, which shows that one student, during his "clinical term," made 8,103 chiropractic adjustments. Another gave 6,528 chiropractic adjustments"; another 5,000; another 4,125; and so on downward. If one were to take such statements at their face value, would it be possible to believe that each and every such student adjustment had been adequately supervised by some licensed chiropractor? And if not, what protection has the poor public from the spine punching student?

2. The bill undertakes to legislate regarding a stated subject, chiropractic, but leaves the definition and delimitation of that subject to an unofficial, unorganized party. Nowhere does the bill define chiropractic. Nowhere does it authorize any state agency to definite chiropractic. The enactment of this bill in its present form would be in effect an abdication of the legislature of Michigan in favor of "the schools and colleges of the chiropractic," in the country at large. The legislature would in effect lay down certain rules with respect to something that it called "chiropractic" and then say to the schools and colleges of chiropractic—not merely those of Michigan, but those of the country generally—now you tell the people and the courts what we have been talking about; for Section 3 of the bill provides:

"The license provided for in this act shall entitle the holder to practice chiropractic *as taught in the schools and colleges of chiropractic.*"

Possibly, a strict construction of the bill would interpret this to mean the practice of chiropractic as taught in the schools and colleges of chiropractic at the time the bill was enacted. If that is the intent of the framers of this bill, then there is no reason why they should not write into the bill exactly what is taught at the present time in such schools and colleges. Certainly they are presumed to know what is there taught, if a knowledge of curriculums of such schools and colleges is ascertainable; and if it is not ascertainable, then the authority the law purports to confer on holders of chiropractic licenses is so vague as to be meaningless. If, however, as the proponents of this bill probably intend—and as they will contend if the bill be enacted—chiropractic is supposed to be a variable quantity, and "chiropractic" as the term is used in this bill is supposed to mean one thing today, another tomorrow, and another the third day, according as the chiropractic schools teach one thing or the other, the enactment of any such legislation would obviously be dangerous. It would be necessary only for some eighteen-months chiropractic schools to undertake to teach major surgery and the use of drugs of all kinds to confer on the chiropractors of Michigan the right to practice major surgery and to use such drugs, even though such chiropractors were absolutely innocent of any knowledge of sur-

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gical anatomy or of surgery or of pharmacology or therapeutics.

Other questions would arise under any such law as is here proposed. How many schools and colleges of chiropractic would have to teach a subject before that subject would become a part of "chiropractic" as taught in the schools and colleges of chiropractic? How would a licensed chiropractor know when a sufficient number of such schools and colleges were teaching a given subject, in order that he might utilize it in his work? In case of prosecution, how would the prosecuting attorney be able to prove that certain given acts of the defendant did *not* come within the scope of the teaching of schools and colleges of chiropractic? How many schools and how many colleges would he have to prove did *not* teach the subject, in order to show that the act had been unlawful? And how would the defendant meet the issue? How many schools and how many colleges would he have to show *did* teach the subject? And how many hours and what nature of teaching would he have to prove in order to show that such teaching came within the meaning of the act?

3. The subject matter of the bill is already amply covered by existing law. The practice of chiropractic is fully authorized and safeguarded by laws now in force in the state of Michigan, notably by Subparagraph Third, paragraph (e) Section 3 of an act to provide for the examination, regulation, licensing and registration of physicians and surgeons, and for the punishment of offenders against this Act, and to repeal acts and parts of acts in conflict therewith, approved May 4, 1913, (citation is from the American Medical Directory, 1923 Edition, 795-797), which is as follows:

"The board is authorized to issue a license or certificate of registration to any person who desires to practice a system of treatment of human ailments or diseases, and who does not in such treatment use drugs or medicines, internally or externally, or who does not practice surgery or midwifery, under the provisions of this Act; provided, that the applicant for such license or certificate of registration shall have an accredited diploma from a high school, academy, college or university, or an equivalent credential, or shall pass an examination to be equivalent to a recognized high school diploma, as provided in subdivision one of this section and shall pass an examination before the board upon the following subjects: anatomy, histology and embryology, physiology, chemistry, bacteriology, pathology, diagnosis, hygiene and public health. This examination shall be concurrent with and equivalent to the examination provided for practitioners of medicine under Section 3, subdivision one, of this Act, and shall be in harmony with the provisions of this section and subdivision covering such examination in the subjects as above specified: Provided, however, that such examination shall be a continuous one and not subject to a division into a primary and a final examination. The fee for such examination shall be fifteen dollars ($15). A practitioner under this subdivision shall not be permitted to use in any form the title of "doctor" or "professor" or any of their abbreviations, or any other sign or appellation to his or her name which would in any way designate him or her as a physician or surgeon, qualified under the provisions of Section 3, subdivisions one and two of this Act, or in violation of the provisions of this Act. All persons granted a certificate of registration or license under the provisions of this subdivision three, shall also conform to the provisions of Act No. 237 of the Public Acts of 1899, and acts amendatory thereto, except as provided in this subdivision."

Obviously, a person licensed to practice under the provisions of existing law as set forth above can practice chiropractic if he sees fit. There is, then, no reason for the enactment of the pending bill. But the motive for seeking its enactment is quite another matter.

The motives for seeking the enactment of this legislation are presumably primarily three in number:

1. *By the enactment of this legislation the chiropractic group will be able to fix standards of its own.* It is obvious that no matter what requirements be fixed by law, if discretion be granted to any administering parties to determine moral character, preliminary education, chiropractic education, and sickness as determined by questions and answers, the actual standards enforced will be those determined upon the bodies to which such discretion is granted.

2. *By the enactment of this legislation, practitioners of chiropractic will be relieved from examination in histology, embryology, bacteriology and pathology.* How would the practitioners of chiropractic pass examinations in hygiene and public health without a knowledge of pathology and bacteriology, it would be interesting to know.

3. *By the enactment of this legislation, chiropractors would be enabled to put "doctor" or any abbreviation of that word before their names.* The enactment of this legislation would repeal the provisions of existing law set forth above, in so far as they relate to the practice of chiropractic, and in that way would repeal the provision that now prohibits a chiropractor from styling himself a doctor. The only other prohibition on the use of the designation, "doctor," lies in the medical practice act, and that prohibits the use of title "doctor" or its abbreviation only "in a medical sense."

Doubtless there are other motives in the minds of those who are pressing for such legislation, such as the possibility of expanding "chiropractic" indefinitely, through the expansion of the curriculums of schools and colleges of chiropractic, as suggested in Section 3 of the bill.

Another objection to this bill—although not a basic objection—is its implied authorization for chiropractors to sign death certificates and perform other similar functions. At least, that I infer is the intent of the following portion of Section 3:

"All persons licensed under this act shall observe and be subject to all state and municipal regulations relative to the control of contagious diseases and shall comply with all the laws pertaining to the public health."

Certainly, without any such legislation, one would expect all licensed chiropractors, in common with all other persons, to "observe and be subject to all state and municipal regulations relative to the control of contagious diseases," and to "comply with all the laws pertaining to the public health." The phraseology stated above is, therefore, unnecessary, unless it has some occult meaning, and such occult meaning is, it is believed, the implication that chiropractors shall do whatever physicians do under the state and municipal regulations relative to the control of contagious diseases and relative to public health. Of course, if chiropractors honestly filed their certificates, certifying that each and every death was due to a dislocated vertebrae, the value of the statistics of the state would be materially reduced. If, however, the State of Michigan is really convinced that tuberculosis, syphilis, gonorrhea, goiter, and intestinal parasites, and all other diseases whatsoever, are due to dislocated vertebrae, there is no reason why the State of Michigan should not express its belief and faith by providing for the licensing of chiropractors in the manner stated; and if it goes that far, certainly it should recognize the value of chiropractic statistics, as an important means for the guidance of the State Health Department in preventing such dislocations.—W. C. W.

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SECOND CHIROPRACTIC BILL

A second Chiropractic Bill was introduced in the Senate. We present herewith an analysis of it so that you may present the facts to your senators and representatives.

Memorandum relative to Senate Bill No. 164, Michigan, 1925, a bill to create a Board of Examiners, to regulate the practice of chiropractic, etc.

I.

This bill impresses me as drawn either very negligently or very adroitly. It does not forbid the practice of chiropractic by any one, so that if its purpose is to prevent the practice of chiropractic by incompetent persons it will not accomplish that end. It will, however, provide for licensing, without examination, of at least a part of the chiropractors who have been plying their trade in Michigan for two years or more. It will, however, authorize a coterie of men who have voluntarily organized themselves under the grandiloquent title of "National Board of Medical Examiners" to issue certificates of proficiency to whomsoever they will, and for whatsoever prices they see fit to charge, which certificates will entitle the holders thereof to licenses to practice chiropractic in Michigan, without inquiry by any Michigan agency into their fitness for such work.

II.

Section 12 of the Act provides that, "Any person who violates any of the provisions of this Act shall be punished by a fine not to exceed $300.00 or by imprisonment in the county jail for a time not to exceed three months, or by both such fine and imprisonment." The "provisions of this Act" do not prohibit any one from practicing chiropractic or compel any one to take out a license. They do, however, forbid any one who has taken out a license from practicing anything "but straight chiropractic." (See Sec. 5.) "Straight chiropractic" is defined by Section 4 as follows:

"Chiropractic is defined to be the science of palpating and adjusting the articulations of the human spinal column by the hand only. This definition is inclusive and any and all other methods are hereby declared not to be chiropractic."

Those who are familiar with the chiropractic situation will recognize at once that this bill is not designed to cover and it does not cover chiropractic generally, but covers only one school of the chiropractic dogma. The other is left to shift for itself.

For the benefit of those who are not familiar with the situation it may be said that chiropractors are divided into two distinct factions, between which there is war about as bitter as any that ever existed between non-sectarian physicians and homeopaths. The so-called "straight" chiropractic is a follower of the Palmer School, at Davenport, Ia. He believes, or professes to believe, that each and every disorder to which the human body is subject can be detected and cured by "the science of palpating and adjusting the articulations of the human spinal column by hand only;" Even lousiness, intestinal worms, venereal diseases, tuberculosis, blindness, and cancer yield to such treatment, according to this school of thought. The other chiropractic faction claims certain virtue for "the science of palpating and adjusting the articulations of the human spinal column," just as do the osteopaths with whom this method of treatment originated. But this group of chiropractors, contemptuously dubbed by their chiropractic opponents as "mixers," believe that such manipulations of the back bone must be supplemented by other methods of treatment, such as hydrotherapy, electrotherapy, physiotherapy, and even the use of some drugs. The "mixers" is not a clearly defined group; for while all believe that spinal manipulations must be supplemented by other methods of treatment, the extent to which they would resort to such other methods of treatment depends apparently on the views of the individual "mixer." Obviously, then one purpose of this bill is to procure from the state of Michigan governmental endorsement by the Palmer School. No one could be licensed under the Act, if the bill should become a law, unless he had been graduated by "a chiropractic school or college teaching nothing but straight chiropractic." (See Sec. 3.) No one who had been licensed could practice anything but straight chiropractic; for under the provisions of Section 5 it would be unlawful for him to do so, and he would be subject to fine and imprisonment, and under the provisions of Section 10, he would be liable to have his license revoked.

It certainly would be a somewhat remarkable procedure for the legislature to lend endorsement of the state not only to the theory and practice of chiropractic as a whole, but to lend its endorsement to the theory and practice of that trade as expounded by a scism in it. Certainly, before going so far, the legislature may be expected to call on the University of the State of Michigan and on the State Department of Health to report on the facts underlying the chiropractic hypothesis as to diagnosis and treatment.

The fact that the "mixers" could still ply their trade after the enactment of this bill, just as they do now, in defiance of the medical practice act and without any added difficulty or danger, may induce them to refrain from opposing this bill. If they do, however, it will be quite logical that next year they will come in with a bill of their own for the legalizing of what, for lack of a better term, I presume we must call "crooked" chiropractic. If the "mixers" make this demand, they will certainly be entitled to it quite as much as are the "straight" chiropractors and if the demand of the "mixers" be granted, then each and every pseudomedical sect will be entitled to the same privilege as has been granted these two groups. What the situation will be in Michigan then may be inferred from the following list of pseudomedical sects now before the public:

Aero-therapy
Astral healers
Autothermy
Biodynamo-chromatic therapy
Chromo-therapy
Christos (blood washers)
Chromopathy
Coueists
Drugless healers
Electrotonic methods
Electric light diagnosis
Electryonic methods
Electro-homeopathy
Electronapro-therapy
Geo-therapy
Herbalist
Helio-therapy
Irido-therapy diagnosticians
Kneipp cure
Leonic healers
Mental and spiritual healing
Medical gymnast
Mechano-therapy
Naturalogist
Natureopath
Neuro-therapy
Naprapath
Psycho-analyst
Photo-therapy
Physio-therapy
Practo-therapy
Quartz-therapy
Spondylo-therapy
Sani-parator
Spectrocrome
Spectro-therapy
Tropho-therapy
Telathermy
Vitopath
Zodiao-therapy
Zonet-therapy

III.

Aside from the objections to this bill pointed out above, there is a vital objection in the fact that it turns over to many non-resident groups of chiropractors the right to determine who shall and who

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shall not practice chiropractic in Michigan, without vesting in any agency of the state of Michigan authority to do anything more than to inquire whether the would-be Michigan practitioner is "of good moral character." (See Sec. 9) which provides:

"Any person of good moral character, licensed by a chiropractic board of any other state or territory or holding a certificate from the National Board of Chiropractic Examiners, shall be licensed without examination upon the payment of $25.00."

It will be noted that the license issued by the chiropractic board of any other state or territory may have been issued under conditions much more lax than those laid down in this bill. It may authorize holders to practice within the jurisdiction wherein it was issued, not only to "straight" chiropractic, but also the "mixed" variety. The licentiate may in fact be a graduate of a school teaching the "mixed" variety, but he can come into Michigan only if he is willing to forego his knowledge of all therapeutic measures other than spine punching. He may have been graduated by a school even more incompetent to teach than are the schools described in Section 3 of the pending bill, and he may have been subjected to an examination far more lax than is the examination called for by Section 6; but nevertheless, if he has been licensed by the chiropractic board of any other state or territory he is entitled, as a matter of right to practice in Michigan.

Moreover, licentiates of other states and territories will be entitled to this right even though such other states and territories refuse absolutely to recognize licenses issued by the state of Michigan.

Of course, there would be at least a modicum of protection for the people of Michigan with respect to the issuance of licenses without examination on the basis of licenses issued by other states and territories; for the issuance of such licenses would be to some degree safeguarded by the provisions of the laws of the several jurisdictions from which such licenses emanated. This would not be true, however, of certificates issued by the chiropractic clique that operate through the so-called "National Board of Chiropractic Examiners." This is a private organization, privately controlled, made up of persons many of whom, if not all, are not residents of the state of Michigan. They are beyond the reach of the state of Michigan. They can change their by-laws and methods of issuing certificates any day they see fit. They can charge for such certificates any price they see fit. So long, therefore, as the certificates issued by this board would entitle the holders thereof to licenses, without examination, to practice straight chiropractic in the state of Michigan, the National Board of Chiropractic Examiners would be at liberty to sell to whomsoever it would, for whatsoever price it would, the right to practice "straight" chiropractic in Michigan.

The provisions of the pending bill authorizing licenses without examination on the basis of licenses issued by the chiropractic boards of other states and territories, and on the basis of certificates issued by so-called "National Boards of Chiropractic Examiners" amounts to but little more than an abdication by the Michigan legislature of its right to regulate "straight" chiropractic in Michigan, in favor of the foreign agencies named above.

IV.

It is rather interesting to find a bill that is presumably designed to insure the adequacy of knowledge and skill of persons licensed under it deliberately formed so as to limit such knowledge and skill. Under Section 3, if a person has graduated from a school or college teaching anything other than "straight" chiropractic he cannot obtain a license. Obviously, the "straight" chiropractors realize that the moment any one studies methods of healing other than those of "straight" chiropractic, he realizes the inadequacy—if not the folly—of the pretentions of the "straight" chiropractor. Even if a "straight" chiropractic has any knowledge whatsoever of simple remedies and emergency treatment, he must leave that knowledge behind when he enters upon the practice of "straight" chiropractic in Michigan. If he should recommend a soda mint tablet for acid stomach, or a dose of Epsom salts or castor oil as a laxative, he would be subject to fine and imprisonment, and his license might be taken away from him. If some one by mistake, believing the chiropractic to be a physician, called him to an emergency case, and if the chiropractor attempted to stop the flow of blood or to dress or cover a wound so as to limit the chances of infection, pending the arrival of a physician, the chiropractor would still be liable to fine and imprisonment and to have his license revoked. The chiropractor must staunch the flow of blood and prevent infection by punching the spine, and not otherwise.

To make a good chiropractor, you must catch him young—and ignorant. A man with a high school education or with two or more years college education is too apt to ask embarrassing questions of the chiropractic faculty and not to make an apt student. He knows too much. And so this bill does not require even a high school education, or any education at all. It requires merely that the matriculate at a chiropractic school possess a "preliminary education or experience equivalent to a high school education." And apparently it leaves the faculties of the chiropractic schools throughout the country to determine what education and what "experience" is "equivalent" to a high school education.

The bill provides the usual hocus-pocus about "three years of six months each;" also about "requiring actual attendance upon classes." How much "actual attendance" would be required, the bill does not say. Neither does it intimate whether those chiropractic schools that fix their chiropractic class "hours" at thirty minutes are to be regarded in good standing.

Applicants are to be required to attain an average of "at least sixty per cent," an extremely low passing mark. When it is realized how low the mark may be in individual branches in the examination and yet permit the applicant to make an average of sixty per cent on the entire examination, it is apparent how ignorant the licentiate may be. And as if to avoid any possibilty of the legislature or any other agency ever checking up the work of the board, no provision is made to preserve the questions and answers for any length of time.

V.

A not infrequent claim of the chiropractors is that they do not treat disease. The pending bill, however, is a frank recognition of the fact that they do so, for Section 10 provides for the revocation of a license if the licentiate "practices anything other than chiropractic to cure or relieve disease or to remove the cause thereof," or if he "holds himself out to cure incurable diseases."

VI.

The financial arrangements within this bill are interesting. Apparently the intent is to hold out to the legislators the prospect of large sums for the public school funds as a result of the enactment

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of the bill. The license fees to be charged the chiropractors are high and numerous, and Section 10 provides that—

"If at the close of any fiscal year there remains in the hands of the state treasurer $1,000 over and above all indebtedness of the board the same shall be turned over to the public school fund."

The only hope for any considerable sum to be derived for the public school fund from the enactment of this bill lies in the possibility of Michigan becoming the haven of the chiropractors of the country through the rights the bill proposes to vest in the National Board of Chiropractic Examiners. That board need but issue licenses right and left to chiropractors of all kinds, who could thereupon swarm to Michigan, and the revenue might be considerable. Still, however, if the legislature is so much in need of money as to resort to methods of that kind, it would do better to license chiropractors without examination, or with a merely nominal examination, and then rake into the treasury of the state the money that under the proposed scheme will go into the treasury of the National Board of Chiropractic Examiners.

VII.

Section 8, that proposes to issue licenses without examination to "straight" chiropractors who have been continuously engaged in the practice of chiropractic in this state for two years prior to the passage of this act," is nothing more nor less than surrender by the state to a rebellious group of persons who have been bootlegging chiropractic to the people of Michigan for two years or more in defiance to the power and authority of the state government. If the legislature surrenders to such a rebellious chiropractic group, the result will be in effect an invitation to similar groups of natureopaths, napropaths, poropaths and other organized bands to resort to a similar defiance of the state law in order to obtain their ends.

VIII.

Finally, there is no reason whatsoever for the enactment of any such law as is here proposed; for any chiropractor "straight" or "mixed," who has a reasonable basic examination can obtain a license as a drugless healer, under the laws of Michigan as they now stand. Any licensed physician and any licensed drugless healer can today give to the people of Michigan any advantage to be derived from spine punching as taught by the chiropractic school, if there were any benefit.

This bill cannot be justified even on the allegation that there is a special technique of spine punching, for it makes no provisions for excluding from the practice spine punchers, chiropractic or otherwise. All it does is to legalize the spine punching by the group of defiant spine punchers who have heretofore been plying their trade in Michigan—and it does not undertake to determine their qualifications as spine punchers. It grants to state and territorial boards and cliques of nonresident chiropractors the right to determine who shall and who shall not practice spine punching in Michigan but it does not lay down any rule whereby they are to determine such qualifications nor any method whereby the work of such boards and cliques can be checked up.

IX.

On the whole this bill seems to me to be a shrewd effort to procure a pardon and reward for a group of Michigan law breakers and to provide an easy method whereby a certain class of chiropractor factories can unload their output on the state of Michigan, by the "National Board of Chiropractic Examiners" route.

COUNTY SECRETARIES CONFERENCE

Date: April 22nd, 1925.
Place: Grand Rapids; Rowe Hotel.
Hour: 10:30 a. m.
For: All County Society Secretaries.

The above tabulation headlines the details of this important conference.

Its object is to afford an opportunity for a meeting of all our County Secretaries to discuss our organizational problems, to formulate plans of activity and to institute measures that will enhance the benefits of membership.

Our Conference last year demonstrated its value. We anticipate greater benefits this year.

We urge every Secretary to attend. We urge that every County Society will send its Secretary to this Conference and pay his expenses.

The following is the program:

* * * *

SECRETARIES' CONFERENCE
April 22, 1925
Hotel Rowe
Grand Rapids, Mich.

10:30—Opening Remarks. C. C. Clancy, M. D., President; J. B. Jackson, M. D., Chairman of the Council.

11:00—The Spirit of Organized Effort. F. C. Warnshuis, M. D., Secretary-Editor.

11:20—What are Desirable Features of the Scientific Programs? G. J. Curry, M. D., Flint.

11:35—Discussion—15 minutes. (Each discussant limited to three minutes).

12:00—Luncheon.

1:30—Aids in Secretarial Work. H. L. French, M. D., Lansing.

1:45—Discussion—15 minutes. (Each discussant limited to five minutes).

2:00—Community Responsibility and Work of the County Society. Don F. Kudner, M. D., Jackson.

2:15—Discussion—15 minutes. (Each discussant limited to five minutes).

2:30—Co-operation with County Societies. Harvey George Smith, Executive Secretary.

2:50—Round Table.

Points of Discussion

Membership, New and Delinquent.
Committee Work, Methods.
Attendance, Methods of Securing.
Publicity.
Automobile Emblems.
Reports for the Journal.
Special Society News and Information.

Evening—Regular meeting of the Kent County Medical Society at 8:00 p. m.

Editorial Comments

The Annual Meeting of the American Medical Association will be held this year in Atlantic City during the last week in May. For a meeting place few cities can equal Atlantic City. For a national meeting the A. M. A. makes attendance worth while, of personal profit and affords excellent opportunity for restful diversion. Special railroad rates of one and a third fare will be obtainable.

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Hotel accommodations are ideal and can be secured at very reasonable rates. Plan to attend. Secure your hotel reservations now. It will profit you handsomely if you participate in this national meeting.

The Annual Meeting of all our County Secretaries will be held in Grand Rapids on April 22nd. Your local Secretary is the most important officer in your County Society. He expends much time and effort in your behalf. Your County Society owes it to your Secretary to instruct him to attend this Conference and to defray his expenses. Please see that this action is taken at your next County Meeting.

We boast of our civilization and the while cold figures tell us that there are twenty million illiterates who can neither read or write and of whom but half can write their name. One out of every 100 citizens is either insane, epileptic or reveals a degenerative stigmata. Crime cost this nation during 1924 ten billion dollars. We spent more for cosmetics than we did for sanitation. More was spent for hair nets than for social education in spite of the hair bobbing fad. These are just a few facts that furnish reasons for reflective thought.

Our congratulations to Ohio and its state legislature. This law making body declined to create a Chiropractor Board with special privileges to the members of that cult. Ohio also enacted a law making it compulsory for both parties of a marriage contract to present certificates attesting to their being free from any venerial infections. This latter is splendid constructive legislation. Other states may well imitate and institute eugenic laws. The sooner they do, the sooner will our state institutions for defectives diminish. It is a movement of far greater importance than feeding of infants, control of tuberculosis, cancer or dental conservation. We trust the truth will become evident to our law makers.

This issue contains some three pages of additional and new advertising. These contracts have been secured for varying periods and are dependent for renewal upon the results obtained by these advertisers. The revenue from these contracts make your Journal possible and enable us to enhance its value and scope. They also enable your Publication Committee to send you the Journal for the price that is being assessed against your dues. It must therefore be percievable that each member has an obligation and a duty to perform and that is to patronize these advertisers. Give them your preference and place your orders with these absolutely reliable firms. Many of them will give you exceptional service and accord you every courtesy. All of them are willing to serve you and will do their part to make you satisfied with every transaction. We plead with you to support your Journal by dealing with these patrons who solicit your business. Will you not demonstrate that you appreciate their business and send to them your orders?

One of those confounded errors that are without cause, appeared in our March issue. The splendid article on Insulin by Dr. William M. Le Fevre was credited to Dr. George M. Le Fevre. "Dr. William" is a son of Dr. George L. Le Fevre and bids well to "out-shine" his dad and is deserving credit as author of the article referred to. We regret that the error occurred and that "Dad" was given credit for his son's literary labor.

Twenty years ago tuberculosis was the leading cause of death. Today tuberculosis ranks fifth. Organic heart diseases now rank first with a mortality of 150 per 100,000. Out of some million annual deaths from all causes, almost 140,000 or 13 per cent are due to heart disease. For every heart disease death there are 17 living cases of heart disease. These are problems meriting thought and study as well as the formulation of a movement that will reduce this annual mortality that is in a measure amendable to marked reduction.

An increase in the number of cases of venereal disease reported in the United States in the year which ended June 30, 1924, over the number reported in the previous corresponding year is disclosed by the figures recently made public in the annual report of the Division of Venereal Diseases of the United States Public Health Service. The report indicates that the increase in the fiscal year 1924 amounts to 27,382 cases, or 7.2 per cent. A total of 363,063 cases of venereal disease were reported to the various state boards of health from all sources. This total was composed of 193,844 cases of syphilis, 160,790 cases of gonorrhea, and 8,429 cases of chancroid.

"The fact that the 1924 statistics show an increase over those for 1923 does not necessarily mean that venereal disease was any more prevalent in the United States last year than in the year before," explains the Chief of the Division of Venereal Diseases.

"The greater number of cases now on record at the State boards of health," he continues, "may well be accounted for by the increased efficiency in detecting these maladies and by more conscientious reporting of cases on the part of private physicians. For a long time the danger from syphilis and gonorrhea was greatly enhanced by the fact that these diseases were carefully covered and concealed and were often kept secret even from physicians who might have brought about a cure. Fortunately people are now learning that they must go to a reputable physician or clinic if they wish to be cured, and laws requiring that these cases be reported to the State boards of health are making it possible to obtain some idea as to the prevalence of syphilis and gonorrhea in the country, although there are many cases that still escape discovery."

During the fiscal year just passed, 504 public clinics reported to the State boards. These clinics treated 118,023 new cases of venereal disease made up of 65,046 cases of syphilis, 49,029 cases of gonorrhea, and 3,949 cases of chancroid. A total of 2,147,087 treatments were given. The fact that these clinics made 302,152 Wassermann tests for detecting syphilis and 203,008 examinations to discover gonorrhea would seem to indicate that people are beginning to realize the terrible consequences that follow in the wake of these diseases and are willing to take advantage of reputable opportunities for cure.

Reports from 37 correctional and penal institutions were received by the Division. The efforts of those in charge of these institutions have resulted in a large increase in the number of venereally diseased persons discovered and treated. New patients to the number of 7,045 were admitted to treatment in 1924, and increase of 44 per cent over the year 1923.

The menace of venereal disease is one that is being fought by the United States Public Health Service and the various State boards of health acting in co-operation with municipal health officers. These governmental agencies are trying to impress upon parents, teachers, young people and others the need of wholesome sex education, of

prompt medical attention and the necessity for the passage of modern health ordinances and legislation. Among the social institutions which can aid in the fulfillment of this program are the home, the school, the church and the press.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of the Journal:

My attention has been called to an article entitled, "A Diet for Peptic Ulcer," by Dr. A. Altshuler, Detroit, appearing in your January, 1925, number.

In emphasizing the "Jarotzky Diet," Dr. Altshuler states that "the recent paper by Coleman describing a new diet for peptic ulcer is noteworthy, because it is the first time in this country that an attempt has been made to adapt such a diet to the laws of physiology." This is a most surprising statement, as can be proven if reference is made to my papers (Amer. J. Med. Sc. Apr. 1917, p. 547 and Amer. J. Med. Sc Dec. 1923, p. 781).

These papers not only called attention to the need for a total reconstruction of our dietetic regimen to fit established clinical, physiological and pathologic facts, but the first paper appeared a year before Jarotsky published his first paper and two years before his paper which furnishes the chief matter in Dr. Altshuler's contribution. Of course, in neglecting to give an American clinician credit for work done, Dr. Altshuler is only following the custom common in this country, i. e. —observations "made in Europe" are to be accepted and those of home talent neglected. "The hills afar off are always greenest!"

In the fifth paragraph of his paper, Dr. Altshuler mentions my contribution of April, 1917 to the American Journal of the Medical Sciences, but his comments indicate either that he has not read it (and subsequent papers) or that he has grossly misread it. He states "The diets of Lenhartz, Sippy and Smithies, which allow milk, egg, bread, meat and fruit ignore the fundamental work of Pawlaw (written "Pavlov") which showed that the secretions of the stomach are excited (written "exicted") differently by various foods, and the frequent feedings demanded by the Sippy and the Smithies methods keep the stomach in a continuous state of peristaltic unrest. Thus the modern Russian school demands that in the treatment of peptic ulcer, first, gastric secretion be kept in abeyance (written "obeyance"), and second, gastric motility be reduced to a minimum, while at the same time the nutrition of the patient be kept at a high level.

Anyone who is familiar with my writings and clinical procedures will recognize that Dr. Altshuler has gained an entirely wrong impression of the regimen which I have carried out for more than 12 years. All my papers have persistently called attention to the unphysiologic premises of feeding milk, eggs and cream and all my dietetic endeavors have been directed to keeping the stomach food free for the maximum time. "In school and out," I have preached against alkalies, stomach tubings and egg and milk protein feedings. I have shown the physiologic inconsistencies of their exhibition and, I believe, was first to emphasize the importance of "Physiologic Rest" as a method of peptic ulcer management. The "demands of the modern Russian school" were anticipated some five years in my clinic, as those who have visited it well know. Further, my whole attitude in the matter was made plain at the Annual Grand Rapids session of the Michigan State Medical Society in 1923 in my address.

The inconsistencies of "the modern Russian school" and Dr. Altshuler are shown by his summary of the "Jarotsky Diet": "the feeding of egg white and butter exclusively for 10 to 14 days," (in America we are to assume that egg excites gastric secretion; in Russia, it is an "astringent", "fiixes free acid"—and, of course, excites no gastric peristalsis!); "butter is given to supply calories"; "upon reaching the duodenum" (without gastric peristaltic activity, I assume), "it depresses the acidity of the chyme and closes the pylorus" and "while still in the stomach, it stimulates the opening of the pylorus" (thus initiating and maintaining gastric peristalsis in spite of the wishes of "the modern Russian school"!) "and causes the regurgitation of duodenal contents which aids in the fixation of acid." (I am not familiar with any literature, Russian or otherwise, where proof of these statements has been submitted).

So far as Jarotsky has written and so far as Dr. Altshuler has cited his own experience (8 cases of gastric ulcer) no evidence is at hand that the Jarotsky, Coleman or Altshuler regimens stand on so sound a scientific basis and on that, consistency, as does the "Physiologic Rest" method which I have employed in more than 500 ulcer cases, during the past twelve years. Furthermore, the dates of my first publication, (1917, the paper being read before the American Gastroenterological Association in May, 1916), definitely prove that Dr. Altshuler's statement that "Coleman's paper is the first time in this country that an attempt has been made to adopt such a diet to the laws of Physiology" will not bear scrutiny.

Yours truly,
Frank Smithies, M. D.
Professor of Medicine, School of Medicine, University of Illinois.

FROM AN EX-PRESIDENT

Enclosed find petition that was handed to me two days ago. The Society and Journal are certainly making strides that must be pleasing to those interested in the welfare of the profession.

With kindest regards,
Yours respectfully,
W. J. KAY.

We appreciate these comments from one who has served our Society so well and faithfully.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

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NURSES' private home, invites convalescents and invalids; best of care, fine location. R. Rs. N. Y. C. and Interurban; best of references given. For particulars write Bessie Bileth, 566 Ely Street, Allegan, Mich.

WANTED: Salaried Appointments for Class A Physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

A PRACTICAL course in Standardized Physiotherapy, under auspices of Biophysical Research Dept. of Victor X-Ray Corporation, is now available to physicians. Offers a highly practical knowledge of all the fundamental principles that go to make up the standards of modern scientific physiotherapeutic work. Course requires one week's time. For further information apply to J. F. Wainwright, Registrar, 236 So. Robey St., Chicago, Ill.

The fifty-second annual meeting of the Northern Tri-State Medical Association will be held in Battle Creek, Mich., Tuesday, April 14th, 1925.

The Sturgis Memorial Hospital was dedicated on February 18th, and is now open for the reception of patients.

Dr. J. T. Case, Battle Creek, returned March 6th from a three months trip through South America.

Dr. Eugene B. Pierce, Superintendent of the Michigan State Sanatorium, located at Howell, Michigan, resigned his position on February 21st. It was accepted to take place on April 7th.

Dr. Pierce has been in charge of the Michigan State Sanatorium since August, 1909. At that time the institution was in its infancy, accommodating only 46 patients. Now it is caring for 166 adults and 72 children. It is the only state sanatorium in Michigan.

After spending some time in post graduate study, Dr. Pierce expects to take up private practice in Ann Arbor.

The American Board of Otolaryngology will hold its first examination during the meeting of the American Medical Association in Atlantic City, May 25th to 28th.

According to the rules of the Board, applicants are divided into three classes.

Class 1—Those who have practiced Otolaryngology ten years and more.

Class 2—Those who have practiced Otolaryngology five years and less than ten years.

Class 3—Those who have practiced Otolaryngology less than five years.

The type of examination is different for each class.

The Secretary, Dr. H. W. Loeb, announces that thus far over three hundred applications have been made.

OUR SOCIETY BUSINESS AND ACTIVITIES

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

ONE OF THREE THOUSAND

Are you, or are you not to be, one of the 3,000 members of the County and State Medical Societies of Michigan? The County Secretaries are reporting renewed membership every day to the state office, but at this time there yet remain a large number of unpaid memberships. Only a few new memberships have been reported. There are 4,600 physicians in Michigan. With the close of 1924 there were 2,800 members. For 1925 shall there be more or less members? If less, the indication will be that the science of medicine is on the wane, that there is loss of interest, that it does not occupy the important position that it once did throughout the cities and communities of Michigan. And in addition this picture appears, there are more and more cultists coming into the state to practice their various arts. They are members of their profession and they pay for their membership. Where the physician pays $10 to be a member of his society, the cultist pays from three to five times this amount. Again, many physicians are members of Associations of Commerce, for which membership they pay from $15 to $25. This is a good membership and one to be advised, but in comparison, what has the physician, alone or as an organization, received that directly benefits himself or his profession? No organization, however efficient it may be, however mindful of all its classes of members, can give to the physician the service and the privileges that his own County and State Medical Society have to offer.

Membership in the County Medical Society means that the physician is a member of the State Society, he receives legal protection, he receives the Journal regularly each month of the year. He has the right to secure service of any kind within the resources of the State Society. The post-graduate conferences have organized to assist the physician directly. In the seven conferences held thus far, 532 physi-

cians have attended and have received direct benefit. The State Society is at work on plans and policies to help educate the public to a better understanding of scientific medicine, how to use science in health and in sickness. The health of the state is safeguarded, and the standards required of all those practising the treating of the sick are maintained by giving to the legislative body of the state of Michigan correct information relative to the profession of medicine and its requirements. These are some of the important activities of the State Society.

In addition, the County Society membership places the profession in the local community on a high plane of service to the public. It gives opportunity to the physicians for study and for advancement in scientific medicine. It offers the means through which, in an organized way, the profession of medicine can best serve its membership and at the same time give greatest service to the community, the city, the county and the state.

When you pay $10 to your State Society and receive all of the above enumerated privileges, are you not getting $10 worth of membership? If you do not pay—and with you, suppose a thousand others fail to do so, what about your profession? By what method would you advance the science of medicine, if not through your own organization? If you do not advance your profession, to what organization will you delegate this responsibility?

No, you cannot stop, you cannot delegate and you cannot get away from your responsibilities. There is just one thing to do, and that is to go ahead. Let nothing stop the advance of the science of medicine, but least of all, let not such retarding influences originate within the medical profession. Going ahead means paying your membership fees at the earliest possible moment to the County Secretaries and in addition, giving the strongest personal support possible in the interest of your County Medical Society, your State Society, your profession, the health of the state. We get from our society in proportion to the whole-hearted support we give, unless we wish to be an additional load to our fellow member. Look forward and not backward in your own profession! Be one of 3,000 for 1925, and more, bring in a new member and thus become one of 3,500 or 4,000.

THE HOSPITAL, THE CLINIC AND THE COMMUNITY

A hospital is an institution of service to the community in which it is located. It serves the sick and the well by administering through a trained staff the best that scientific medicine, treatment and nursing have to offer. It is an institution of applied science. The laboratory, the X-ray and all means of treating and healing are available for the use of the physician and the surgeon. It is an institution of analyses and diagnoses of the human body for the purpose of directing, building or redirecting the inherent forces into strength and health, and thus usefulness and happiness. In reality, it is a new home for those who have become ill, and at the same moment offers to the well knowledge and treatment in order that they may remain well. It is the means through which the human system is kept in tune with the universe.

Through every hospital the science of medicine makes advances. No science is stationary. It is continually setting up new goals and establishing new theories and new facts. So in medical science the hospital offers the staff the opportunity of establishing new goals. Every patient is kept under a control condition from the time he enters, up to the time he leaves the hospital. His record, recorded from day to day, and each record in study with every other, permits of detailed analysis, the setting up of new theories and new goals and the establishment of facts in the treatment of the sick. Thus progress is recorded and the science of medicine for the profession and for the community, the public is advanced.

But how little the community really knows of the hospital in its very center. In most cases it is a splendid building or has beautiful flowers in the gardens, or a beautiful lawn, and what a beautiful location. Whatever knowledge the community gains is usually through the activity of the local press. This may be correct and beneficial to the science of medicine, or it may not. For too long, hospitals have kept their lights under a bushel. The public, in its interest and enthusiasm and desires, wishes to know, and if it doesn't know, it becomes suspicious and unjustly critical. The community wants to know what is being accomplished, what service is given to the sick, what progress is being made. It wants to feel and believe all the time that the hospital is its hospital. It is the owner, and like every individual who owns something, it wishes to have the best possible under the conditions. It wants to have the hospital in each community the very best, the center and the authority of the science of medicine.

The community does not know what is the real nature of a hospital, what it does, what it accomplishes from month to month and from year to year. The staff of every hospital is in study continuously in order that the profession may be advanced and the community may be better served, but the community does not know this fact in most cases. It is the duty of the hospital, of the staff, to keep the public informed from time to time, at least once a year, of what is being accomplished, what the community is really receiving, and that the hospital is not an idle monument, but a living insti-

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tution for the service of the community. No institution serving the community has a lawful and ethical right to advertise, but it must inform.

Hospitals should, through the staff, be most thorough co-operators with County Medical Societies. With understanding, co-operation and a friendly attitude, hospitals and County Medical Societies can advance the science of medicine and give to the public the information and knowledge it seeks. Give to the community the information it seeks and deserves and by so doing advance the profession and the science of medicine.

THE OWOSSO POST GRADUATE CONFERENCE

Sixty physicians of the Sixth Councillor district attended the Post-Graduate Conference at Owosso on February 26th, 1925. The Genesee County Medical Society was represented by 20 physicians.

The conference consisted in the regular scientific program for the physicians themselves and a meeting at the high school for the high school students. At this meeting Dr. Marshall of Flint talked on the profession of medicine and the need of more students in this field. W. H. Henderson, Ph.D., Director of Extension, gave to the public his very popular address, "Science and Superstition." The attendance at the high school lecture was 700, and at the public meeting, 150. The conference was one of the most successful held thus far. Success is not measured by attendance alone, but by interest and the conditions under which activities are carried out. The day of the conference, so far as weather goes, was the worst of any encountered thus far. But in spite of the biting cold and the blizzard that continued all day, the courage of the physicians was not lessened. They remained for all the program.

This is proof of the fact that the programs offered in the post-graduate conferences are of interest to the physicians, are of value in that they give definite information that each can use in his own practise. In addition to the information gained through lectures, that gained by contact in good, wholesome fellowship with fellow physicians during intermissions, at dinner and after, counts oftentimes for as much as the lecture itself. It often clears the point in question raised by the lecturers of the conference.

One of the interesting features of the Owosso conference was the publicity given by the local newspaper. The Owosso-Argus Pioneer gave front page publicity to the fact that the conference was to be held for the physicians of three counties and that special meetings were arranged for the public and the schools. During the various meetings from the beginning of the scientific program to the end of the public lecture in the evening a reporter was present to learn of the subject material and to interpret to the reading public the work of the physicians in an impartial manner. This type of publicity interests the public. It wants to know that the physicians are an active and studious part of every community and are always ready to give their best. County Medical Societies can take lessons from the Shiawassee County Medical Society in developing with the newspapers fair and just publicity for the science of medicine. A word of caution may be stated here: True publicity for the medical profession develops faith, understanding, and makes for progress, while advertising develops suspicion, commercialism and leads to retrogression. County Medical Societies at the time of post-graduate conferences, or when arranging regular and special programs, can legitimately give information to the press.

The Genesee and the Shiawassee County Medical Societies co-operated with the state society by securing publicity and bringing out a large attendance at the conference. Upon the true co-operation of the County Medical Societies depends the success in large measure of the post-graduate conferences.

The following is the program of the conference at Owosso:

1:15 p. m.—"Opening Statements," H. E. Randall, M. D., Councillor Sixth District, Presiding.
Executive Secretary Smith.
1:30—"Examination of New Patients," W. H. Marshall, M. D., Flint, Mich.
2:00—"Fundamentals of Neurological Examination," C. D. Camp, M. D., Ann Arbor, Mich.
2:30—"Interpretation of Physical Examination of the Heart," M. A. Mortenson, M. D., Battle Creek, Mich.
3:00—"Fractures," F. C. Kidner, M. D., Detroit, Mich.
3:30—"Treatment of Bronchitis and Pneumonia," C. E. Chester, M. D., Detroit, Mich.
4:00—Intermission.
4:10—"Mentality Tests," C. D. Camp, M. D., Ann Arbor, Mich.
4:45—"Hypertension," M. A. Mortenson, M. D., Battle Creek, Mich.
5:10—"Orthopedic Corrections of the Feet," F. C. Kidner, M. D., Detroit, Mich.
5:40—"Diabetes," Phil Marsh, M. D., Ann Arbor, Mich.
6:30—Dinner. "American Legion," Fifteen-minute talks by Harvey George Smith and Charles T. Foo, M. D.
8:00—Public Meeting—"Science and Superstition," W. D. Henderson, Ph. D., Ann Arbor, Mich.
2:30—Afternoon talk at high school by W. H. Marshall, M. D., Flint, Mich.

Deaths

Dr. W. J. Sugnet of Gagetown, Michigan, died March 18th, after a ten day illness. Dr. Sugnet was forty-five years of age, a graduate of the University of Michigan Medical College in the class of 1905. The twenty years he practiced medicine were confined to Gagetown and the surrounding community.

WHEREAS, Through the death of Dr. Anna

Odell the Blackwell Society has lost one of its pioneer and most active members; therefore be it

RESOLVED, That this Society is sensible of its great loss in the untimely death of Dr. Odell; therefore be it

RESOLVED, That a copy of this resolution be sent to Dr. Odell's family and that it be incorporated in the minutes of the Society and a copy sent to the Journal of the Michigan State Medical Society.

Signed, F. Chadwick, M. D., Chairman,
Rhoda Farquharson, M. D.

County Society News

WAYNE COUNTY

The activities of the Wayne County Medical Society for the month of February, 1925, consisted in the main in the usual weekly meetings with programs as follows:

February 2, "Acute Otitis Media," by Howard Peirce, M. D., followed by an educational film on "How We Hear."

February 9, "Diathermy and Ultra Violet Ray Therapy," by A. J. Pacini, M. D., of Chicago.

February 16, a most interesting symposium on "Peptic Ulcer," under the supervision of Grace Hospital. The papers by titles were as follows: "Symptamatology and Diagnosis," by John Taylor Watkins, M. D., "Roentgenological Diagnosis," by Rollin H. Stevens, M. D.; "Some Phases of the Dietary and Medical Management," by C. Emerson Vreeland, M. D.; "Peptic Ulcer From the Surgical Standpoint," by Herbert W. Hewitt, M. D.

February 23, "The Significance of Blood in the Urine," by Herman L. Kretschmer, M. D., of Chicago.

The meetings were uniformly of a high calibre and presented much of scientific and practical interest.

Richard M. McKean, Secretary.

ALPENA COUNTY

The regular meeting of the Alpena County Medical Society was held March 19th at the New Alpena House. Doctors Wm. A. and Leo Secrist entertained the Society at dinner; after which the scientific meeting was held at the home of Dr. D. A. Cameron. Dr. C. M. Williams gave an interesting history of the progress in the estimation of Basil Metabolism and demonstrated an office apparatus for its estimation. Dr. Wm. McCandliss, who had practised medicine in China for five years, described Chinese medicine as lacking scientific knowledge, and any sense of responsibility to the patient. On being called to attend the sick, they never returned to see the patient; they never examined him but devoted their time to a long discussion of their theory of disease.

The Post-Graduate Medical Conference will be held at Alpena, April 2. Medical men are invited to be the guests of the local Society at luncheon and dinner on that date.

C. M. Williams, Secretary.

MUSKEGON COUNTY

A meeting of the Muskegon County Medical Society was held in the banquet room of the Occidental hotel on the evening of February 20th. After the reading of the minutes of the last meeting, the president set aside the order of business and Dr. Garber gave a very interesting talk on "These Ninety Years," reviewing the many advances made in the Arts and Sciences during the lifetime of our guest, Dr. Stoddard, in whose honor this banquet was given. He also prophesied some of the achievements of the next ninety years.

Dr. Stoddard responded to a request for a talk on "These Ninety Years" and after a few words of appreciation, gave a very interesting resume of his long and useful life.

Doctors, their wives, and guests to the number of forty-one enjoyed the evening.

After the completion of business the meeting adjourned.

P. S. Wilson, Secretary.

OAKLAND COUNTY

A meeting of the Oakland County Medical Society was held February 27th, 1925, at Taft hall, Birmingham, Mich., at which 24 members were present. Dr. John Taylor Watkins of Detroit, gave a paper on, "The Diagnosis and Treatment of Peptic Ulcer." A motion was passed to contribute $25.00 per year for four years to the Borgas Memorial fund.

The president, Dr. Colvin, appointed a membership committee to try to interest men in our county who are not members. Meeting adjourned.

Our next meeting will be held on March 20th, at which time we will be addressed by Dr. C. E. Vreeland of Detroit.

Leon F. Cobb, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting Tuesday, March 3rd, at the Miscowaubik Club, Calumet, Mich., with eight members present.

After reading of the minutes and the allowing of bills for the current month, the following program was indulged in: Dr. K. C. Becker of Mohawk, read a paper on "Chorio-Epithelioma," with report of case which he had seen while in hospital service in Toledo, Ohio. Dr. Becker's paper was fully discussed by those present. Dr. A. C. Roche of Calumet, next presented a case of "Congenital Absence of Both Radius," showing the X-rays of the case. A very free discussion was indulged in by those present. Dr. G. C. Stewart next presented a case of Eclampsia following delivery; discussion of this case was indulged in also.

The necessity of the early payment of dues was insisted upon and several responded.

The Society then adjourned to lunch.

G. C. Stewart, M. D., Secretary.

GOGEBIC COUNTY

The regular meeting of the Gogebic County Medical Society was held at Grand View hospital, Friday, March 13. Eight members were present. Dr. Dorpat read a paper on "Foreign Proteins As a Cause of Disease." Following a discussion on this paper, various other scientific subjects were discussed.

M. J. Lieberthal, M. D., Secretary.

NEWAYGO COUNTY

The annual meeting of the Newaygo County Medical Society was held in the dining room of the Kimbark Inn, in Fremont, Mich. The following officers were elected for the ensuing year:

President, Dr. Lambert Geerling, Fremont; Vice-President, Dr. A. C. Tompsett, Hesperia; Secretary-Treasurer, W. H. Barnum, Fremont; Delegate to M. S. M. S., H. A. Brady, Newaygo; Committee on Medical Defense, N. DeHaas, Fremont.

W. H. Barnum, Secretary.

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Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1924: Cloth. Price, postpaid, $1.00. Pp. 82. Chicago. American Medical Association, 1925.

This volume contains the reports of the Council on Pharmacy and Chemistry that have been adopted and authorized for publication during 1924. Some of these reports have appeared in The Journal of the American Medical Association. Others are now published for the first time.

The annual volumes of the "Council Reports" may be looked on as the companion volumes to New and Nonofficia Remedies. Whie the atter contains the medicinal preparations that are found acceptable, the reports contain the reasons why certain products were not accepted. Thus the present volume contains reports on the following products which the Council denied admission to New and Nonofficial Remedies: Aolan; Aspatol; Atussin, Peptoproteasi, Paraganglina Vassale, Fosfoplasmina, Asmoganglina and Endo-Ovarina Tablets: Borosodine; Carsinol; Colodine and Colobromidine; Ferrasin; Glyeuthymenol; Hoyt's Gluten Flakes; Iodeol; Loeflund's Food Maltose; Mistura Creosote Comp. (Killgore's) and Tablets Cascara Comp. (Killgore's); Neo-Riodine; Nicomors; Peptone Solution for Hypodermatic Use (Armour); Pixalbol; "P-O-4"; Pollantin; Promonta; Pruritus Vaccine Treatment-Lederle (Montague Method); Restor-Vin; Some "Mixed" Vaccines of G. H. Sherman and Tersul Hiller.

The volume also contains reports on products which were included in former editions of New and Nonofficial Remedies but which will not appear in the 1925 edition because they were found ineligible for further recognition. Among these are polyvalent antipneumococcic serum, colon bacillus vaccine, gonococcus serum and gonococcus vaccine.

The volume contains a number of reports of a general nature: for instance a report on the therapeutic value of benzyl benzoate; a report on anaphylaxis produced by thromboplastic substances and a report on the therapeutic use of digitalis.

Physicians who keep fully informed in regard to the value of proprietary remedies will wish to own this book.

LOCAL ANESTHESIA SIMPLIFIED: J. J. Posner, D. D. S., Harlem Dispensary, New York. Price $3.50. C. V. Mosby Co., St. Louis.

With fifty-five illustrations and a clear descriptive text this effort sets forth in a particular and simple manner dental anesthesia and nerve blocking in the maxillar. It will be found to be a teacher and guide that is thorough, effective and dependable. The anatomical relationships are plainly outlined.

SURGICAL PATHOLOGY: William Boyd, M. D., Professor of Pathology, University of Manitoba; Pathologist to the Winnipeg General Hospital, Winnipeg, Canada. Octavo of 837 pages with 349 illustrations and 13 colored plates. Cloth $10 net. W. B. Saunders Co., Philadelphia and London.

As Dr. W. J. Mayo says in the foreword of this text: "Pathology is a science dealing with living things and conditions." We who have looked upon pathology as a cadaveric subject dealing only with things in the dead-house or the specimen par, have great need to revise our attitudes. Dr. Boyd in this text has given us what we so long have needed—a handbook on pathology for the internist and surgeon that is practical. Modern surgery is based upon pathology as well as upon anatomy. We have ignored the pathology. This text fills the defect. It is a text that no surgeon can afford to ignore. It is a new force in his work, another assistant in the operating room. We commend it unreservedly.

OFTEN DON'T SUSPECT WE HAVE WEAK HEARTS

Persons who are the surest they have weak hearts are in many cases laboring under a delusion, while the ones who least suspect it are those whose hearts need treatment.

This is the opinion of Dr. William Duncan Reid, Boston heart specialist, who tells in the April Hygeia why heart disease heads the list in the mortality statistics.

"Many persons come to the doctor with some such list of symptoms as these—rapid heart action with pain around the heart, shortness of breath, dizziness, oppression, blue skinned hands. That sounds like a bona fide sick heart, doesn't it? Well, it isn't. The doctors call it effort syndrome, which means that due to some disturbing factor a set of symptoms appear simulating cardiac disease, although no impairment of the heart has occurred."

Then there is the other type of individual, Dr. Reid points out, who feels so well that he thinks he can impose on himself to the extent of working hard, eating heartily of rich food, taking no adequate exercise and scorning vacations. His heart may be so badly diseased that he will drop dead the next week.

The only way to know if your heart is in good condition is to have a periodic examination by your doctor and not worry, says Dr. Reid.

BEST WAY TO REMOVE SUPERFLUOUS HAIR

How can I remove superfluous hair?

That is one of the most frequent questions asked of Hygeia, popular health magazine published by the American Medical Association. In its February issue a prominent physician answers that question as follows:

There is no preparation that can be used locally to destroy superfluous hair without injjuring the skin more or less permanently. Preparations sold for removing hair remove it only temporarily and frequently cause an inflammation of the skin.

The X-ray will remove hair permanently, but it is apt to injjure the skin and is not recommended for this purpose. A safe and certain method is by the electric needle, provided the work is done by a person properly trained for that work.

Peroxid and ammonia, often recommended for removing hair, will bleach the hair but will not kill it, the magazine states.

MOST DEAFNESS PREVENTABLE

There are 80 per cent more deaf persons in the United States than there should be. The reason for this is that deafness, at least four-fifths of it, can be prevented if proper treatment is instituted at the onset of the trouble. The majority of persons become deaf in childhood and nothing is done to alleviate the trouble until they begin to complain later in life; then it is often too late to do more than arrest the condition.—Hygeia.

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